INTERNATIONAL MONETARY FUND

IMF Country Report No. 21/97

THAILAND

2021 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR THAILAND

June 2021

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 2021 Article IV consultation with Thailand, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its May 17, 2021 consideration of the staff report that concluded the Article IV consultation with Thailand.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on May 17, 2021, following discussions that ended on March 11, 2021, with the officials of Thailand on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on April 26, 2021.
- An **Informational Annex** prepared by the IMF staff.
- A **Staff Supplement** updating information on recent developments.
- A **Statement by the Executive Director** for Thailand.

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.

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PRESS RELEASE

PR21/154

IMF Executive Board Concludes 2021 Article IV Consultation with Thailand

FOR IMMEDIATE RELEASE

Washington, DC – June 3, 2021: On May 17, 2021, the Executive Board of the International Monetary Fund (IMF) concluded the 2021 Article IV consultation[1] with Thailand.

The Thai economy is showing incipient signs of recovery from the COVID-19 downturn, owing in part to a multi-pronged policy package of fiscal, monetary, and financial policies. After the economic contraction of 9.4 percent q/q in 2020:Q2, far exceeding the fall during the Global Financial Crisis (GFC), real GDP, buttressed by policy support, rebounded in the second half of 2020 limiting the overall GDP decline for the year to 6.1 percent. Weak domestic demand, coupled with a subdued global economy, contributed to both weak headline and core inflation throughout the year. The current account (CA) surplus narrowed from 7 percent of GDP in 2019 to 3.2 percent of GDP in 2020 (Table 3), largely reflecting the collapse in tourism receipts.

The economic recovery is expected to be sluggish, uneven, and subject to heightened uncertainty. Real GDP is projected to expand by 2.6 percent in 2021, led by a gradual recovery in domestic demand and goods exports. The drag on tourism is expected to continue for most of 2021 due to uncertainty around vaccine rollouts and full resumption of global travel. The economy is projected to rebound by 5.6 percent in 2022 supported by an acceleration in tourism and continued strength in the global recovery. Headline inflation is forecast to recover somewhat in 2021, buoyed by the recovery in oil prices, while core inflation would likely show some inertia given the continued sizable slack in the economy. With recovering domestic demand pushing up imports and the continued weaknesses in tourism, the CA surplus is projected to decline further to about 0.5 percent of GDP in 2021 and slowly recover to around 3−3½ percent of GDP through the medium term as tourism strengthens. The uncertainty surrounding the growth outlook is nevertheless larger than usual. While a faster distribution of an effective vaccine is a positive risk, the unknown path of the pandemic and potential bottlenecks on vaccination plans could challenge the pace of the recovery. A prolonged pandemic could amplify vulnerabilities in the nonfinancial corporate sector raising the risk of scarring. Both distributional and long-term scarring risks also loom large.

[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.

Executive Board Assessment[2]

Executive Directors commended the authorities for their timely and multipronged policy support, which helped to cushion the impact of the pandemic on households and firms. Acknowledging that the ongoing economic recovery is expected to be slow, uneven, and clouded by the unknown path of the pandemic, Directors welcomed Thailand's accelerated vaccination rollout plan and called for continued accommodative policies to support the recovery. Moving forward, they encouraged the authorities to leverage the post-COVID economic recovery towards greener, digital, and more sustainable and inclusive growth.

Directors called for further fiscal expansion to support the recovery, with an emphasis on public investment and support to the most vulnerable, while ensuring fiscal governance and transparency. Premature tapering should be avoided. Once the recovery is firm, a comprehensive medium-term consolidation strategy anchored on a strengthened fiscal framework would be necessary to rebuild buffers and preserve fiscal sustainability.

Directors welcomed the Bank of Thailand's accommodative monetary policy stance, including targeted policy measures to enhance the efficiency of intermediation and shore up viable firms. Given the large output gap and fragile inflation expectations, many Directors saw scope for further monetary easing, including unconventional monetary measures if downside risks materialize to enhance the impact of the financial measures and fiscal stimulus. On the other hand, many others concurred that such measures would be less effective given Thailand's specific circumstances. Noting the resilience of the financial sector, Directors called for continued vigilance and close monitoring of emerging risks and vulnerabilities to safeguard financial system stability.

Directors welcomed the authorities' commitment to exchange rate flexibility and supported that FX interventions should be limited for addressing disorderly market conditions. They also concurred with staff's recommendation to phase out the remaining capital flow management (CFM) measures on non-resident baht accounts.

Many Directors noted that Thailand's external position remains stronger than warranted by medium term fundamentals and desirable policies. Many other Directors called for a more cautious interpretation of the external balance assessment citing Thailand-specific issues and the pandemic-led structural shifts in the global economy as contributing factors.

Directors emphasized that coordinated and multipronged policies are needed to heal pandemic-induced scars on the economy and address long-standing structural challenges. Such measures could include active labor market policies to upskill workers dislocated by the pandemic and government-supported initiatives to incentivize formal employment and human capital accumulation. Measures to support private sector-led investment to reshape the tourism sector and encourage digitalization would also be useful. The authorities' commitment to adopt well-designed green policies is an important step towards enhanced sustainability and economic resilience.

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[2] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summing up can be found here: http://www.IMF.org/external/np/sec/misc/qualifiers.htm.

Table 1. Thailand: Selected Economic Indicators, 2017–22

					Projections	
	2017	2018	2019	2020	2021	2022
Real GDP growth (y/y percent change) 1/	4.2	4.2	2.3	-6.1	2.6	5.6
Consumption	2.4	4.2	3.4	-0.6	3.7	2.7
Gross fixed investment	1.8	3.8	2.0	-4.8	5.3	3.3
Inflation (y/y percent change)						
Headline CPI (end of period)	0.8	0.4	0.9	-0.3	1.0	1.1
Headline CPI (period average)	0.7	1.1	0.7	-0.8	1.3	1.0
Core CPI (end of period)	0.6	0.7	0.5	0.2	0.7	1.0
Core CPI (period average)	0.6	0.7	0.5	0.3	0.5	0.9
Saving and investment (percent of GDP)						
Gross domestic investment	22.9	25.2	23.7	23.9	24.4	23.8
Private	17.1	16.9	16.8	16.6	17.5	17.2
Public	6.0	5.9	5.7	6.4	6.9	6.7
Change in stocks	-0.2	2.4	1.2	0.8	0.0	0.0
Gross national saving	32.6	30.8	30.8	27.1	24.9	26.5
Private, including statistical discrepancy	26.7	25.3	26.7	25.4	22.8	22.1
Public	5.8	5.5	4.1	1.7	2.0	4.4
Foreign saving	-9.6	-5.6	-7.0	-3.2	-0.5	-2.6
Fiscal accounts (percent of GDP) 2/						
Central government budgetary balance	-2.4	-2.5	-2.6	-5.0	-4.0	-3.6
Revenue and grants	17.8	17.9	17.9	15.1	17.0	17.4
Expense and net acquisition of non-financial assets	20.3	20.4	20.5	20.2	21.0	21.1
Net acquisition of non-financial assets	1.9	1.9	1.9	2.1	2.0	2.0
General government balance 3/	-0.4	0.1	-0.8	-4.7	-4.9	-1.5
SOEs balance	0.7	0.5	0.6	-0.1	-0.3	0.3
Public sector balance 4/	0.3	0.6	-0.3	-4.8	-5.2	-1.2
Including quasi-fiscal activities	3.9	3.9	3.9	3.9	4.9	4.9
Public sector debt (end of period) 4/	41.8	42.0	41.0	49.6	55.9	54.7
Monetary accounts (end of period, y/y percent change)						
Broad money growth	5.0	4.7	3.6	10.1	1.2	3.2
Narrow money growth	9.4	2.8	5.7	14.2	3.5	6.1
Credit to the private sector by depository corporations	4.6	5.8	2.4	4.5	3.5	6.1
Balance of payments (billions of U.S. dollars)						
Current account balance	44.0	28.4	38.2	16.3	2.4	15.3
(In percent of GDP)	9.6	5.6	7.0	3.2	0.5	2.6
Exports, f.o.b.	233.7	251.1	242.7	226.7	250.2	261.9
Growth rate (dollar terms)	9.5	7.5	-3.3	-6.6	10.4	4.6
Growth rate (volume terms)	5.3	3.9	-3.7	-5.9	8.8	4.7
Imports, f.o.b.	201.1	228.7	216.0	186.9	215.3	226.2
Growth rate (dollar terms)	13.2	13.7	-5.6	-13.5	15.2	5.0
Growth rate (volume terms)	7.2	7.7	-5.7	-11.7	4.4	5.7
Capital and financial account balance 5/	-18.0	-21.2	-24.6	2.1	-2.4	-15.3
Overall balance	26.0	7.3	13.6	18.4	0.0	0.0
Gross official reserves (including net forward position, end of period) (billions of U.S. dollars)	239.3	239.4	258.7	287.4	287.4	287.4
(Months of following year's imports)	12.6	13.3	16.6	16.0	15.2	14.2
(Percent of short-term debt) 6/	326.8	288.4	325.3	313.6	334.4	311.6
Forward position of BOT (end of period)	-36.7	-33.7	-34.3	-29.3	-29.3	-29.3
Exchange rate (baht/U.S. dollar)	33.9	32.3	31.0	31.3	…	…
NEER appreciation (annual average)	4.4	4.0	6.9	-0.5	…	…
REER appreciation (annual average)	3.2	3.0	5.6	-2.6	…	…
External debt						
(In percent of GDP)	34.2	32.2	31.6	37.9	36.2	36.0
(In billions of U.S. dollars)	155.9	163.1	171.9	190.0	195.1	208.1
Public sector 7/	31.6	35.7	38.0	37.0	36.7	36.4
Private sector	124.4	127.4	133.9	147.6	158.4	171.7
Medium- and long-term	59.7	65.9	74.6	76.1	92.0	99.5
Short-term (including portfolio flows)	64.7	61.5	59.3	71.5	66.4	72.2
Debt service ratio 8/	5.8	6.0	6.3	6.3	7.3	7.3
Memorandum items:						
Nominal GDP (billions of baht)	15,488.7	16,368.7	16,896.3	15,703.0	16,245.2	17,244.0
(In billions of U.S. dollars)	456.5	506.4	544.2	501.9	…	…

Sources: Thai authorities; CEIC Data Co. Ltd.; and IMF staff estimates and projections.

1/ This series reflects the new GDP data based on the chain volume measure methodology, introduced by the Thai authorities in May 2015.
2/ On a fiscal year basis. The fiscal year ends on September 30.
3/ Includes budgetary central government, extrabudgetary funds, and local governments.
4/ Includes general government and SOEs.
5/ Includes errors and omissions.
6/ With remaining maturity of one year or less.
7/ Excludes debt of state enterprises.
8/ Percent of exports of goods and services.

INTERNATIONAL MONETARY FUND

THAILAND

STAFF REPORT FOR THE 2021 ARTICLE IV CONSULTATION

April 26, 2021

KEY ISSUES

Context: A nascent recovery is underway in Thailand following the COVID-19 downturn. Ample policy buffers, underpinned by judicious management of public finances, allowed the authorities to implement a multipronged package of fiscal, monetary, and financial policies to mitigate the COVID-19 impact on households, businesses, and the financial system. This, together with rigorous containment measures, led to a successful flattening of the infection curve during most of 2020. Nevertheless, the pandemic has taken a large toll on the economy, potentially inducing long-term scarring and increasing inequality.

Outlook: The recovery is expected to be sluggish and uneven in 2021, reflecting the continued drag on tourism, with growth projected at 2.6 percent in 2021. While speedy vaccination could boost confidence and accelerate the recovery, delays in vaccinations, including overseas and the associated slow recovery in international tourism, could be a further break.

Policy recommendations: Policies should focus on continuing to support the recovery while fostering social inclusion, limiting scarring, and tackling long-standing challenges exacerbated by the pandemic. Specifically:

- *Diversifying vaccine access and strengthening vaccine distribution will be critical* to laying the groundwork for a strong recovery.
- *Premature tapering of policy support should be avoided* as this could intensify financial sector stress with high economic and social costs, worsening poverty and inequality.
- *A more vigorous fiscal expansion is warranted.* The available fiscal space should be directed towards the scaling up of public investment and protecting the vulnerable, mitigating long-term economic damage from the pandemic, and boosting the country's productive capacity.
- *Targeted policy measures to enhance financial intermediation, accompanied with further monetary policy easing, and shoring up viable firms, are needed.*
- *Coordinated and multipronged structural policies, focused on upskilling workers dislocated by the pandemic, facilitating resource reallocation, and adapting the economy to the post-COVID-19 world,* would heal pandemic induced scars and address long-standing structural challenges.

Approved By
Kenneth H. Kang and Maria Gonzalez

Discussions took place by video conference during February 24-March 11, 2021. The team comprised L. Leigh (head), S. Kaendera, D. Muir, S. Nadeem, and A. Stepanyan (all APD). The mission met with the Minister of Finance Arkom Termpittayapaisith, Bank of Thailand Governor Sethaput Suthiwart-Narueput, senior government officials, private sector representatives and development partners. Ms. Mahasandana, Executive Director, and Mr. Dacharux (OED) attended the meetings. Ms. Dao (APD) provided analytical inputs. Ms. Tanseco (APD) coordinated the production of the report.

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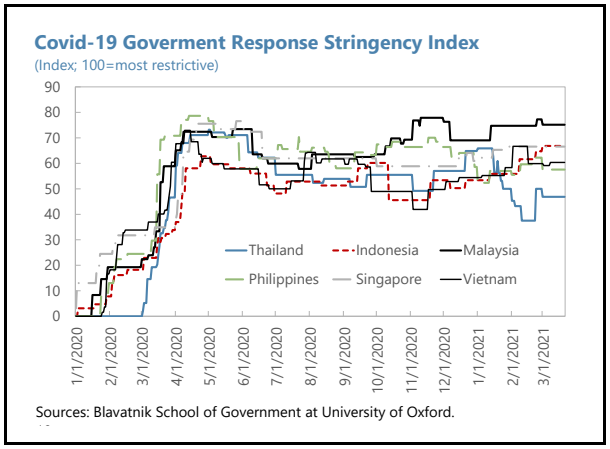
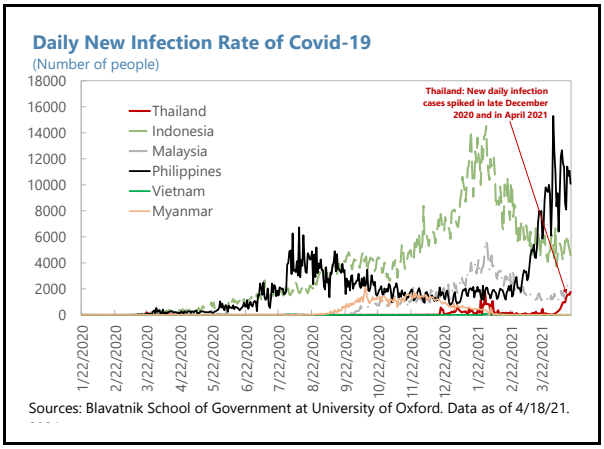
CONTEXT: GREEN SHOOTS EMERGING AMID LONG-STANDING CHALLENGES

1. Thailand's economy is showing incipient signs of recovery from the COVID-19 downturn. At the onset of the pandemic, ample policy buffers underpinned by long-standing judicious management of the public finances allowed the authorities to decisively implement a multi-pronged package of fiscal, monetary, and financial policies to mitigate the impact of the outbreak on households, businesses, and the financial system. The government also introduced strict containment measures, which partly contributed to a sizable contraction in GDP in 2020H1. The economy rebounded in 2020H2, but was cut short by a late December second COVID-19 wave that challenged the authorities' reopening strategy. The response to the second wave targeted specific infection hotspots and was successful in reducing daily new infection cases mostly below 100 by mid-February 2021 from nearly 1,000 in January. However, daily new infection cases increased again in the second week of April suggesting uncertainties on the path of the pandemic.



Sources: Blavatnik School of Government at University of Oxford.

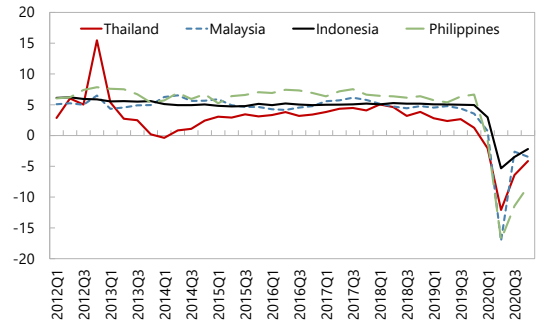


Sources: Blavatnik School of Government at University of Oxford. Data as of 4/18/21.

2. Pre-COVID-19, Thailand's economy was already slowing, and the pandemic has likely exacerbated the pre-crisis macro-structural and social challenges. In 2019, Thailand recorded its lowest growth in five years and trailed behind regional peers for a better part of the decade. The economy has been challenged by low productivity growth and lackluster human and physical capital accumulation, high household debt, and weak social safety nets. Inequality and informality remain high, and a savings-investment imbalance persist. With these conditions and a high dependency on tourism, the COVID-19 crisis has taken a large toll on the economy, potentially inducing long-term scarring and widening income disparities. Informal and migrant workers have been hit hard, particularly women and youth, who have suffered disproportionately from diminished employment opportunities in contact-intensive sectors.

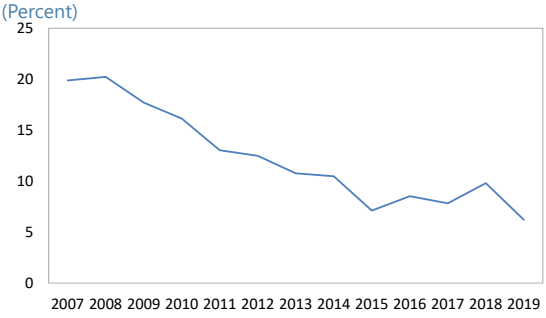
Pre-COVID Macro-Structural and Social Outcomes

Real GDP growth
(Y/y percent change)



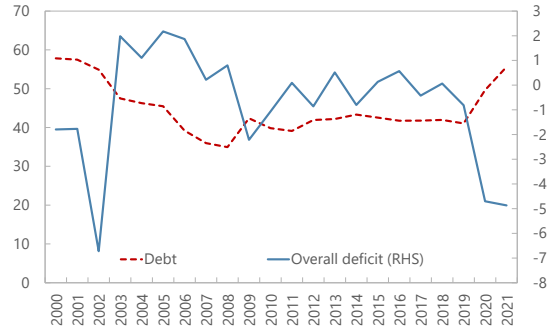
Source: Haver

Thailand: Poverty Rate, 2007-19
(Percent)



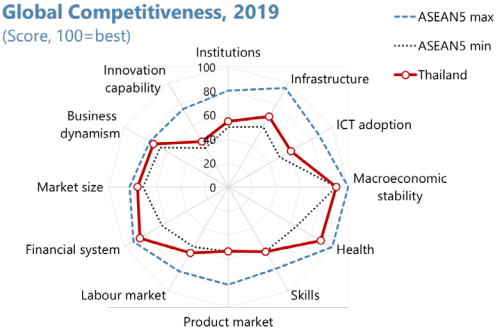
Note: Poverty rates are measures as the percentage of the population with the average consumption expenditure per person per month below the poverty line.
Source: Office of the National Economic and Social Development Council.

Thailand: Public Debt and Deficit
(In percent of GDP)



Sources: Authorities; and IMF staff calculations.

Global Competitiveness, 2019
(Score, 100=best)

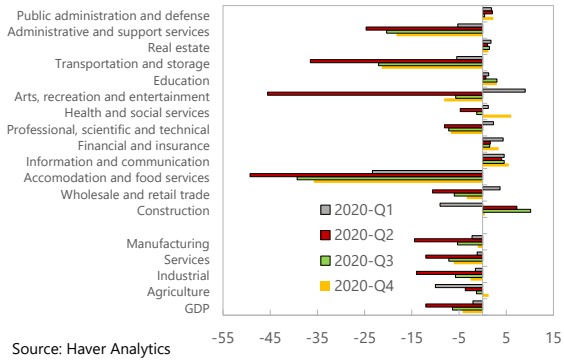


Source: World Economic Forum, *Global Competitiveness Report 2019*. The Global Competitiveness Index 4.0 is based on the official data and opinion survey of business executives and assesses the microeconomic and macroeconomic foundations of national competitiveness, which is defined as the set of institutions, policies, and factors that determine the level of productivity of a country.

RECENT ECONOMIC DEVELOPMENTS: MULTIPLE PANDEMIC-RELATED HEADWINDS

3. Thailand witnessed its largest GDP fall in 2020 since the Asian Crisis. The economy contracted by 9.4 percent q/q in 2020Q2, far exceeding the fall during the Global Financial Crisis (GFC). Buttressed by policy support, real GDP recovered in both 2020Q3 and 2020Q4, with q/q growth of 6.2 percent and 1.3 percent respectively, limiting the overall GDP decline for the year to 6.1 percent. Contact-intensive sectors, such as tourism, transportation, and retail, have been more affected than construction, utilities, and medical services. The tourism sector, which accounts for about a fifth of GDP and 20 percent of employment, has been especially affected by the cessation of

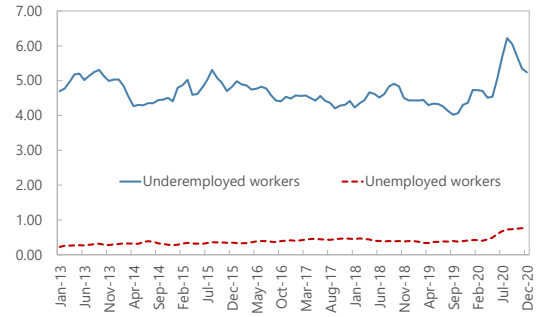
GDP by Industry
(Y/y percent change)



Source: Haver Analytics

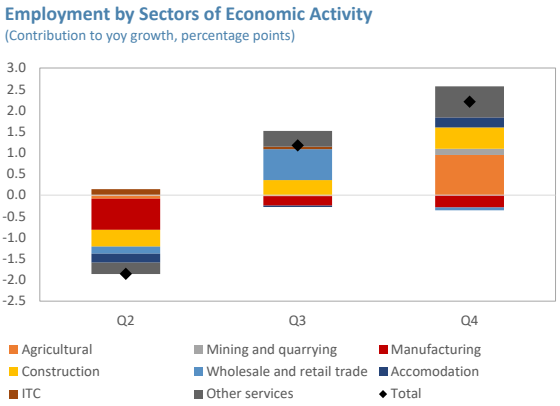
tourist travel. Weak domestic demand, coupled with a subdued global economy, contributed to weak headline and core inflation throughout the year (Figure 2). Staff estimates show a large output gap, given that the reduction in demand outstripped the large and persistent slowdown in potential output growth, although these estimates are highly uncertain in the current pandemic setting.

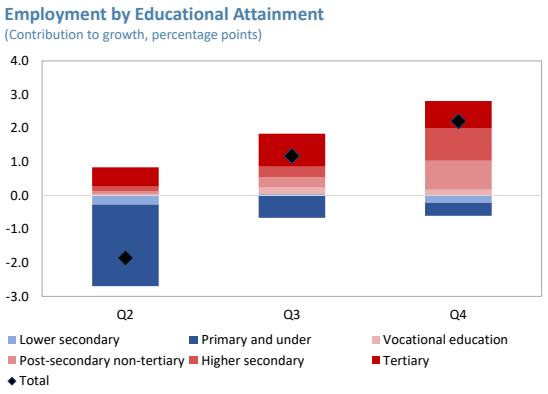
4. Labor market outcomes show significant variation across sectors and educational attainment. After contracting by 1.9 percent year-over year in 2020Q2, official employment rebounded by 1.2 percent in 2020Q3 and 2.2 in 2020Q4 surpassing pre-COVID-19 levels. This masks the sharp increase in underemployment, which likely reflects the shift to agricultural and informal sectors. Low skilled workers bore the entire burden of the layoffs observed in 2020, while the high-skilled continued to enjoy solid employment growth. The unemployment rate doubled in 2020Q2 and remained elevated throughout the year despite the rebound in employment growth reflecting increased labor force participation.



Sources: BOT; Haver Analytics; and IMF staff calculations.

Labor Market Developments, 2020 Q2–Q3





Sources: Office of the National Economic and Social Development Council and IMF staff calculations.

5. While the banking system has, thus far, weathered the pandemic relatively well, stress in the small and medium enterprises (SME) sector are building up. Overall, the banking system remains well provisioned and capitalized even under extreme stress tests recently conducted by the Bank of Thailand (BOT). Non-performing loans (NPLs) remain contained at around 3.1 percent as of 2020Q4. Abstracting from the ongoing changes to the loan classification system,[1] stage 2 (doubtful) loans, at 6.6 percent year end, have trended downward, likely reflecting temporary

[1] In response to the 2019 FSAP recommendations, the Thailand authorities have undertaken several actions to refine and revise regulations, including the adoption of the IFRS9 in January 2020. In response to COVID-19, the BOT temporarily relaxed rules on loan classifications and provisions to facilitate bank credit extension.

regulatory forbearance and debt relief measures adopted in response to COVID-19. Nevertheless, NPLs in selected SMEs and tourism have risen by more than the average, suggesting latent strains on firms that could manifest as NPLs if economic conditions do not improve quickly. Due to accommodative monetary conditions, overall loan growth strengthened to 5.1 percent y/y in 2020 relative to 2 percent in 2019. A lion's share went to larger corporates, and lending to SMEs declined, reflecting tighter lending standards and higher credit risk. Driven by pandemic-related shocks to income and employment, household debt reached an all-time high of 86.6 percent of GDP in 2020Q3.

Commercial Banks' Loan Growth, 2019–2020

Growth, year-over-year	2019	2020			
	Q4	Q1	Q2	Q3	Q4
Corporate loans	-0.8	3.3	5.1	4.5	5.4
Large firms (>500 million baht)	0.7	7.9	13	10.6	13.1
SMEs (<500 million baht)	-5.1	-4.6	-3.3	-2.8	-2.8
Consumer loans	7.5	5.6	4.8	4.8	4.6
Corporate bonds	9.6	7.7	4.5	7.5	3.8

Source: Bank of Thailand (data as of February 22, 2021)

6. The authorities' deployed a multi-pronged policy package to manage the crisis.[2]

- **Fiscal policy**: The government swiftly approved a strong fiscal package of pandemic response measures, such as health-related spending and assistance to affected households, including those outside the social security system (text table) financed by some reprioritization in the FY2020 budget and an accumulation of new debt. The emergency lifeline support when containment measures were in place, followed by demand support when such measures were eased, were effective in supporting a rebound in private consumption during the second half of 2020. Consequently, the deficit widened to about 4.8 percent of GDP in 2020 from 0.3 percent of GDP in 2019, generating a 3.2 percent of GDP fiscal impulse (Table 4). The public debt to GDP ratio is estimated to have risen from 41.1 percent in 2019 to 49.6 percent in 2020.

Thailand's Announced COVID-19 Fiscal Measures

	% of GDP	*Baht (bn)*
Total Fiscal Measures	**12.2**	**1832.0**
On-budget, above the line	8.0	1277.0
o/w debt financed	6.3	1000.0
Phases I and II - assumed to be financed within the original FY2020 budget	1.7	277.0
Phase III - health spending, cash handouts, and spending on projects to support economic recovery - financed with additional debt issuance)	6.3	1000.0
Below the line	4.1	555.0
Equity injections, loans, asset purchase or debt assumptions	0.5	80.0
Contingent liabilities	3.6	475.0
Guarantees (correspond to guarantees on BOT soft loans)	2.0	325.0
Quasifiscal	1.6	150.0

Sources: Thai authorities and IMF staff estimates. The table is based on IMF's presentation of fiscal accounts (GFS), which differs from the authorities' presentation.

- **Monetary policy**: The BOT cut the policy rate by 75 basis points between February and May 2020 to an all-time low rate of 0.50 percent.

[2] In response to the unprecedented shock of the COVID-19 pandemic, the authorities have taken several policy actions during 2020, which are in line with staff's past advice.

- **Financial policies**: During the peak of the shock, the BOT also introduced a number of measures to buttress the smooth functioning of financial markets, including soft loans and credit guarantees, most due to expire in either mid- or end-2021 (IMF COVID-19 policy tracker for Thailand).

Financial Soundness Indicator Map 1/

Thailand: Financial Soundness Indicator Map 1/

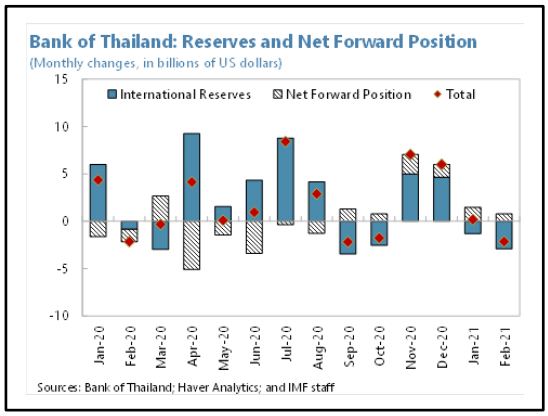
	2015Q4	2016Q4	2017Q4	2018Q4	2019Q4	2020Q1	2020Q2	2020Q3	2020Q4
Overall Rating									
Credit cycle of all financial corporations									
Change in credit / GDP ratio (pp, annual)	3.4	-3.4	-1.6	0.1	-1.0	1.8	7.4	10.6	13.9
Growth of credit / GDP (%, annual)	2.9	-2.2	-1.3	0.3	-0.3	-0.9	1.6	6.6	9.5
Credit-to-GDP gap (st. dev)	-0.7	-0.2	1.5	2.0	1.4	2.3	3.3	2.8	2.6
Balance Sheet Soundness of Commercial Banks									
Balance Sheet Structural Risk									
Deposit-to-loan ratio 2/	96.5	96.8	93.6	94.1	95.1	97.4	97.4	97.5	96.8
FX liabilities % (of total liabilities)	9.0	8.7	8.9	8.7	8.1	8.2	7.9	8.1	7.6
FX loans % (of total loans)	8.7	7.9	6.9	7.0	5.6	6.1	5.7	6.0	5.4
Balance Sheet Buffers									
Leverage									
Leverage ratio (%)	12.4	12.8	12.7	12.8	13.5	12.7	12.9	13.3	13.2
Profitability									
ROA	1.3	1.3	1.2	1.2	1.6	1.5	1.1	0.9	0.8
ROE	11.2	10.4	9.0	9.4	11.4	11.5	8.4	6.9	5.9
Asset quality									
NPL ratio	2.6	2.8	2.9	2.9	3.0	3.0	3.1	3.1	3.1
NPL ratio change (%, annual)	18.7	10.0	2.7	0.8	1.4	3.6	4.4	3.9	4.6
Balance Sheet Soundness of Depository SFIs									
Balance Sheet Structural Risk									
Deposit-to-loan ratio 2/	86.3	86.0	84.0	85.7	84.0	84.2	84.1	85.7	86.4
FX liabilities % (of total liabilities)	0.8	0.7	0.6	0.6	0.6	0.7	0.6	0.6	0.6
FX loans % (of total loans)	0.7	0.7	0.6	0.6	0.8	0.8	0.8	0.8	0.8
Balance Sheet Buffers									
Leverage									
Leverage ratio (%)	5.7	5.8	5.8	6.4	6.3	6.2	5.8	5.8	5.9
Profitability									
ROA	0.8	0.9	n.a	n.a	n.a	n.a	n.a	n.a	n.a
ROE	7.4	8.1	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Asset quality									
NPL ratio	4.3	4.3	3.4	3.2	n.a	n.a	n.a	n.a	n.a
NPL ratio change (%, annual)	-5.9	0.3	-20.5	-7.2	n.a	n.a	n.a	n.a	n.a

Source: IMF staff calculations.

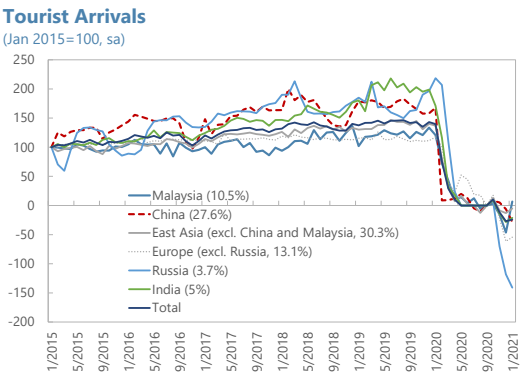
1/ The latest data is based on 2020Q4 where available. Credit cycle analysis is based on loans and securities by all financial corporations, including depository and nonbank institutions. Due to data constraints, balance sheet soundness analysis excludes credit cooperatives and small institutions, which represent 9.8 percent of total assets of depository corporations.

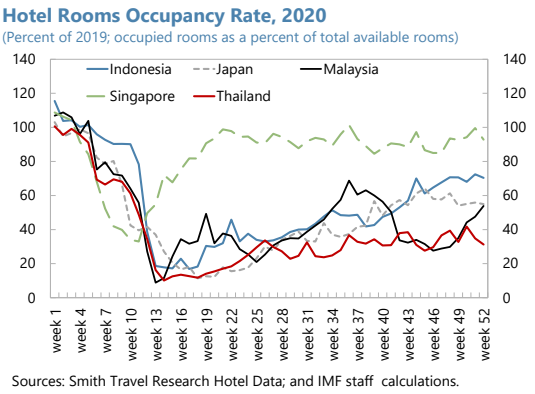
2/ Deposits and loans exclude interbank data.

7. In 2020, the overall external position was assessed to be stronger than warranted by medium-term fundamentals and desirable policies. The current account (CA) surplus narrowed from 7 percent of GDP in 2019 to 3.2 percent of GDP in 2020 (Table 3), largely reflecting the collapse in tourism receipts, and notwithstanding a surge in gold exports and prices. Based on the External Balance Assessment (EBA), and accounting for Thailand-specific factors, staff assess the cyclically adjusted current account gap to be around 0.8–3.8 percent of GDP (Appendix I).[3] Foreign exchange intervention (FXI) was largely two-sided throughout the year in line with capital flow movements, though overall, FX reserves (excluding net forward position) strengthened by US$34 billion to US$258 billion, well above reserve adequacy metrics. Thailand's persistent savings-investment gap is in part driven by structural factors (IMF Country Report No. 19/309) suggesting a need to address the factors contributing to high precautionary savings and subdued investment. Boosting domestic demand, combined with the needed medium-term real appreciation, would help to reduce the external imbalances.



Developments in the Tourism Sector





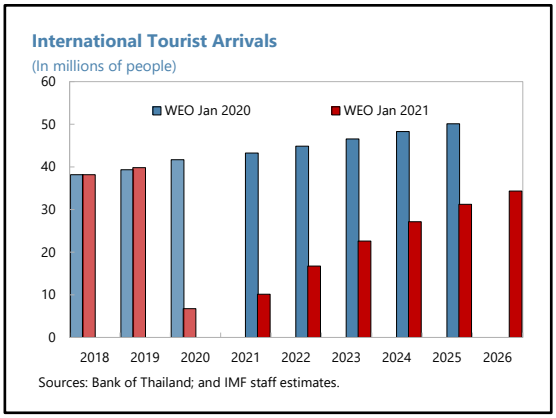
OUTLOOK AND RISKS: A BUMPY ROAD AHEAD

8. The economic recovery in 2021 is expected to be sluggish with divergence across sectors. Staff projects growth to reach 2.6 percent in 2021 (Table 1), led by a gradual recovery in domestic demand and goods exports in line with strong trading partner growth. The drag on tourism is expected to continue for most of 2021 due to the uncertainty around vaccine rollouts and full resumption of global travel. The economy is projected to rebound by 5.6 percent in 2022 supported by an acceleration in tourism and continued strength in the global recovery. In the

[3] A complete analysis will be provided in the forthcoming IMF 2021 External Sector Report (ESR).

medium-term, the economy is expected to grow by about an average of 3.5 percent. Headline inflation is forecast to recover somewhat in 2021, buoyed by the recovery in oil prices, while core inflation would likely remain low given the continued sizable output gap. The output gap is expected to close in 2025 supporting the return of inflation around the middle of the BOT's inflation target range. With recovering domestic demand pushing up imports and the continued drag on tourism, the CA surplus is projected to decline further to about 0.5 percent of GDP in 2021 and slowly recover to around 3-3½ percent of GDP through the medium term as tourism strengthens (Table 3).

9. Heightened uncertainty poses risks to the outlook (Appendix II). The strength of the near-term recovery hinges on the unknown path of the pandemic, amid new virus mutations and potential bottlenecks on vaccination plans. A prolonged pandemic could amplify vulnerabilities in the nonfinancial corporate and household sectors raising the risk of scarring. A sharp rise in global risk premia could generate financing difficulties for leveraged firms and limit banks' ability to support the recovery through higher wholesale funding costs. Over the medium term, further de-globalization could hurt Thailand's supply-chain-based export sector. Long-term scarring also poses significant medium-term risks driven in part by the heavy dependence on tourism. Staff analysis suggests that 5 years after recessions potential output in emerging markets (EMs) such as Thailand is usually lower by more than 4 percent in comparison to less than 2 percent in advanced economies (AEs) (Appendix III). On the upside, a faster distribution of an effective vaccine can accelerate the recovery. In the medium-term, a better-than-expected recovery in trading partners economies, owing to larger-than-anticipated effects from additional fiscal support, could generate positive growth spillovers through trade.

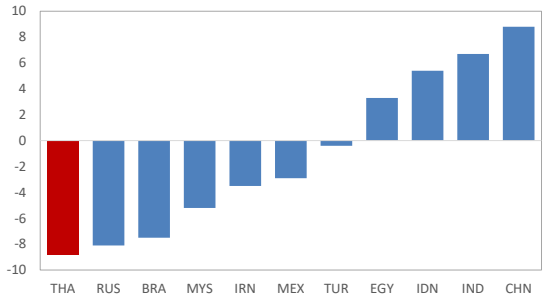


10. Distributional risks of the pandemic loom large. Past pandemics often gave rise to a considerable widening of income inequality.[4] Countries like Thailand with large contact intensive sectors, considerable informality, and high share of low skilled workers with a reduced propensity for teleworking, are likely to experience a larger increase in inequality. Firms, particularly SMEs, face the risk of near-term liquidity problems transforming into solvency problems, while facing challenges in adapting to the post-pandemic normal. Labor-intensive firms in such sectors are more likely to lay off or reduce hours or wages for low-income workers or to close entirely. Challenges for online learning in poor households could also lead to some loss of human capital. These impacts have the potential to linger well into 2022 reflecting the lagged effects of the pandemic on inequality. Staff analysis suggests that in the absence of redistributive policies, the pandemic-induced recession could worsen Thailand's Gini coefficient by about 2 percentage points, reversing gains made since the 1990s (Appendix III).

[4] See Furceri and others 2020.

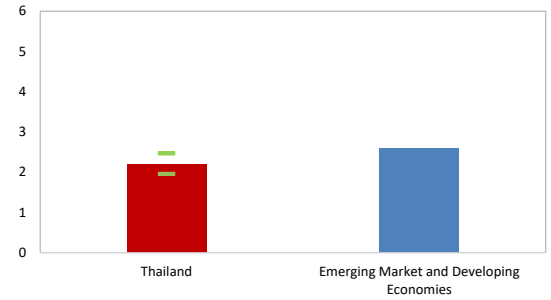
Income Inequality and Factors Affecting It

Emerging Markets: Change in Income Inequality Since 1990
(Change in Gini coefficient for disposable income)



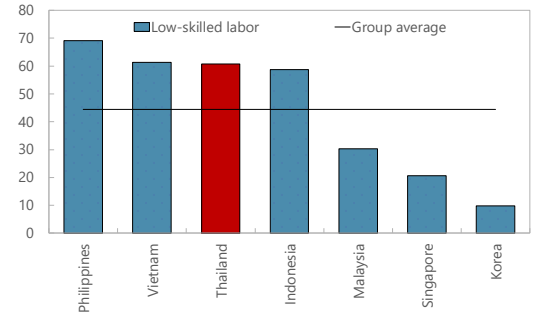
Note: Change is calculated as the latest available minus Gini coefficient in 1990.
Sources: October 2020 WEO, WDI, and IMF staff calculations.

Estimated Change in Gini Coefficient due to COVID-19, 2020
(Percentage points)



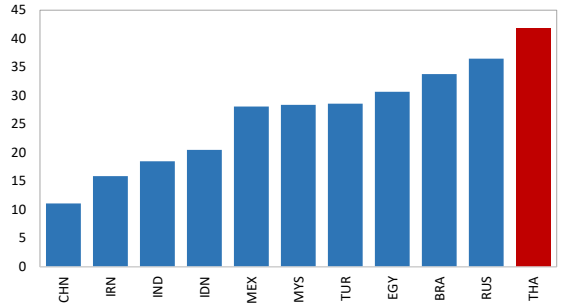
Note: The green em dashes for Thailand indicate the range of estimated impact of the COVID-19 crisis on Gini goefficient.
Sources: Box 1.2 of the October 2020 WEO and IMF staff estimations.

Share of Low-skilled Labor in Labor Force
(In percent)



Sources: ILO; and IMF staff calculations.

Emerging Economies: Size of the Shadow Economy, 2017
(Percent of GDP)

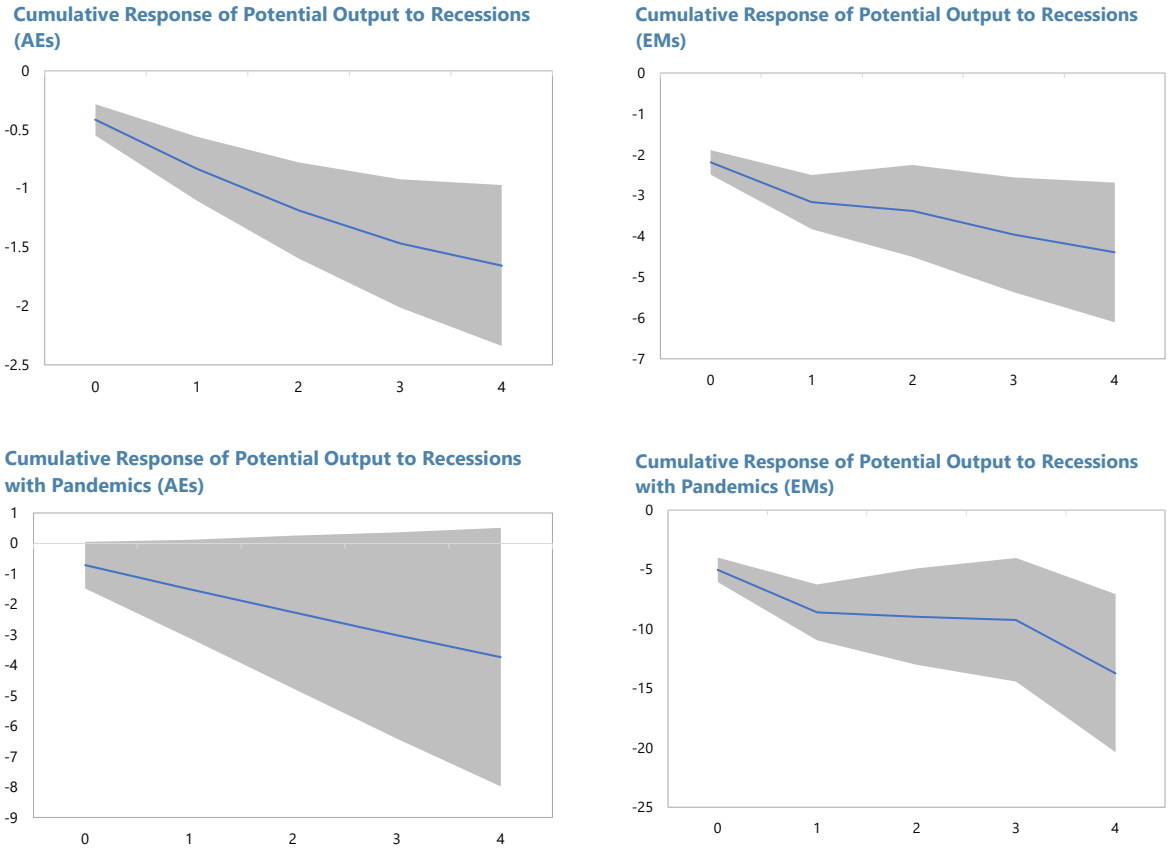


Source: Medina and Schneider, 2019.

11. The authorities broadly shared staff's assessment of the economic outlook and risks. They also expect the Thai economy to experience a modest and uneven recovery in 2021 as tourism is likely to remain weak until 2021H2 but saw slightly stronger growth prospects driven by faster execution of public investment. Like staff, they expect growth in 2022 to be notably stronger as tourism begins its multi-year recovery and appreciated staff's emphasis on the distributional risks of the pandemic. They agreed that risks remain tilted to the downside, related to the vaccination roll-out domestically and abroad, and pandemic uncertainty more generally.

12. While noting the challenges in the 2020 EBA assessment, the authorities acknowledged the importance of macroeconomic and structural policies to address external imbalances over the medium term. They viewed the current account approach of the EBA as less appropriate because of its technical limitations, including the method that is used to derive the real exchange rate adjustment required to close the CA gap. They highlighted that macroeconomic and structural policies would be more appropriate in addressing the roots of the savings-investment imbalance, such as boosting domestic demand and improving social safety nets. Therefore, they urged for caution regarding the presentation and interpretation of the EBA results as it could put too much burden on the exchange rate as the primary rebalancing policy tool.

Impact of Recessions and Pandemics on Potential GDP



Source: IMF staff estimates.

POLICY DISCUSSION: SUPPORTING THE RECOVERY AND LIMITING LONG-TERM SCARRING

Against the backdrop of still sizable economic slack, downside risks to an uneven recovery, and available policy space, in the near term, staff recommends a more targeted and accommodative policy stance aimed at spurring private demand, fostering redistribution and social inclusion, and shoring up viable firms. If downside risks materialize, the authorities should temporarily upgrade the fiscal measures, with more emphasis on targeted intervention, complemented with unconventional monetary policy to enhance the impact of the fiscal stimulus. Over the medium term, coordinated and multi-pronged policies are needed to heal pandemic-induced scars through facilitating resource reallocation, encouraging broad based productivity drivers, promoting inclusive growth, and addressing domestic and external rebalancing, reinforced by well-designed green policies.

A. Timely and Broad Vaccination is Needed to Put a Durable End to the Pandemic

13. Vaccine policy should be viewed as economic policy. The authorities have taken important measures to access and distribute the COVID-19 vaccine with the goal of inoculating 45 percent of the population by year end (Appendix IV). They have also put in motion a far-reaching campaign to raise public awareness and limit vaccine hesitancy. Building on these efforts, including exploring other opportunities to diversify vaccine access, and strengthening the efficient distribution of vaccines, supported by adequate budgetary resources, will be critical to eventually attaining herd immunity and laying the groundwork for a strong recovery.

14. The authorities concurred. While the supply of vaccine is limited, their strategy prioritizes inoculation of high-risk segments of the population in provinces that still experience high rates of new infections. With the increase in vaccine supply, investments in medical grade equipment and trained medical personnel, the authorities plan to vaccinate around half of the population by the end of 2021 and reach herd immunity within 2022.

B. And Fiscal Policy Should Be the Major Buttress to Support the Recovery

15. Staff advocates for an ambitious fiscal expansion focused on scaling up of public investment and protecting the vulnerable. Given the available fiscal space (Appendix V), staff recommends an additional 7 percentage points of GDP spending over the medium term in macro-critical and climate resilient projects, relative to baseline projections.[5] This will increase the cyclically adjusted deficit by, on average, 1 percent of GDP annually during 2022–26 (Figure 1). This would help accelerate the recovery, including by crowding in private investment as envisaged in the Eastern Economic Corridor (EEC) infrastructure projects, and contribute to external rebalancing.[6] Further scaling up of public investment, particularly for digital infrastructure, combined with improving training and education outcomes and promoting innovation will catalyze the economy's digital transformation and mitigate the possible long-term economic damage from the pandemic. Investment in human capital across the regions will help equalize opportunities and unlock growth potential further. Spending should also focus on increasing transfers to the vulnerable households and improve targeting of the existing transfers by: ensuring they are delivered and adjusted if needed in line with the economic recovery; temporarily expanding their coverage to include more vulnerable households based on the existing beneficiary registry, geographic or categorical targeting; and expanding their coverage in affected remote areas.

16. In the near-term, premature tapering of the pandemic-related policy support should be avoided. Unwinding existing policy support measures before the recovery is well underway could intensify financial sector stress and derail the recovery. To accelerate the recovery, staff recommends

[5] Staff's baseline presents staff's best understanding of the authorities' policy intentions and incorporates COVID-19 related spending based on the authorities announced plans.

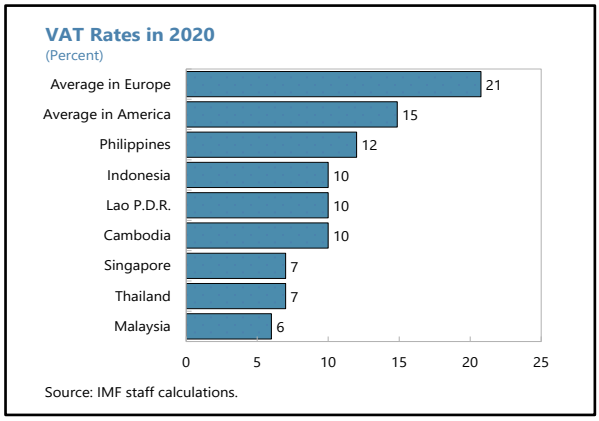
[6] The stimulus towards public investment and targeted transfers to poorer, liquidity constrained households, would likely deliver a higher multiplier package compared to public consumption. For more on the EEC, see IMF Country Report No. 18/143, Box 1.

an additional 1½ percentage points of GDP in transfers and infrastructure spending above what is envisaged in the FY2021 fiscal plan (implying about 2 percentage points increase in the structural deficit, see Appendix V).

17. Robust fiscal governance and transparency is critical for ensuring the efficiency of public spending. Staff recommends that all COVID-19-related spending follow strict guidelines for fiscal transparency and accountability, including the publication of procurement contracts, which should include beneficial ownership information of awarded companies. The authorities should also address bottlenecks in executing infrastructure spending and strengthen the operational aspects of the procurement law through more fair, open, and transparent processes, improve project appraisal capacity, systemic audits of investment projects and fiscal risk monitoring, including for public-private partnerships (PPP). Staff welcomes the steps taken by the Thailand National Anti-Corruption Commission on enhancing the verification of asset declarations of high-level officials and establishing a robust whistleblower protection framework. [7] These include the issuance of regulations and announcements related to the submission and inspection of assets and liabilities and the development of appropriate general and specific whistleblower protection tools, leveraging best practices.

18. The COVID-19 crisis presents an opportunity to align public policies with climate objectives. Moving to an efficient carbon pricing over time will encourage a gradual shift to cleaner energy alternatives, reduce greenhouse gas emissions and air pollution, and help transition to a decarbonized economy (Appendix VII). Carbon pricing has the potential to help Thailand meet its 2030 mitigation commitments and raise revenues envisaged under a medium-term revenue strategy (MTRS), as recommended by the IMF, and thereby contribute to restoring fiscal finances in the aftermath of the pandemic. Households, workers, and firms more vulnerable to higher energy prices from a carbon tax can be identified and compensated adequately through social transfers.

19. Over the medium term, a comprehensive consolidation strategy is needed to rebuild buffers and preserve fiscal sustainability. With staff's recommended fiscal expansion, debt is expected to approach the 60 percent of GDP ceiling under the Fiscal Responsibility Law (FRL) over the medium term. To rebuild policy buffers and preserve fiscal sustainability, staff recommends a gradual medium-term consolidation once the recovery is firm, which in the staff's baseline projections corresponds to 2022. The consolidation should be supported by both revenue enhancing measures and expenditure prioritization. To raise revenues and promote more efficient taxation, both tax administration and policy reforms should be pursued guided by the 2019 MTRS.

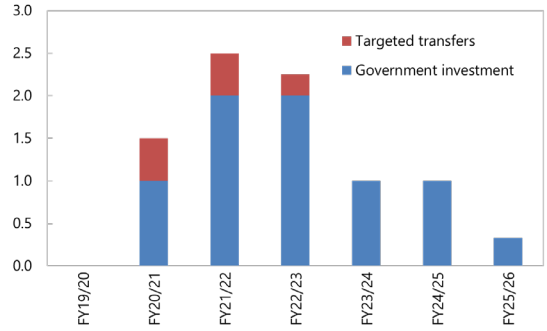


[7] The analysis and recommendations in recent Article IV consultations on governance issues remain broadly relevant (see IMF Country Report No. 18/143 and IMF Country Report No. 19/309).

Figure 1. Thailand: Alternative Scenarios Under Fiscal and Monetary Stimulus

A debt-financed public investment push along with an increase in targeted transfers …

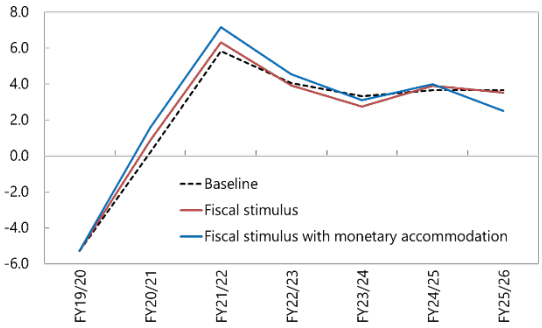
Fiscal Measures
(In percent of GDP; impact on deficit)



Source: IMF staff calculations.

… can support growth, which could be even higher if the policy rate is unchanged against the stimulus' inflation effects

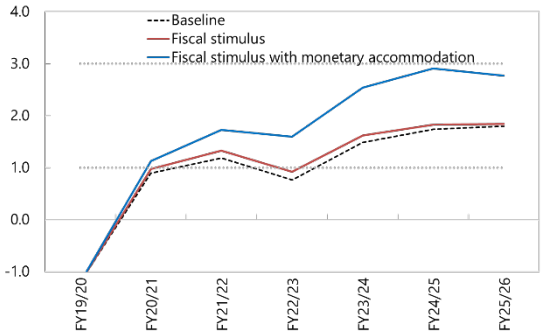
Growth
(In percent, year-over-year)



Source: IMF staff calculations.

Stronger growth would push headline CPI inflation further into the target range, but even with fixed interest rates, it would not breach the upper bound …

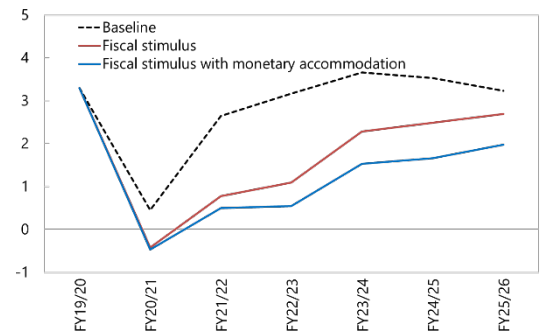
Inflation
(In percent, year-over-year)



Source: IMF staff calculations.

…and would improve the external position, reducing the current account surplus.

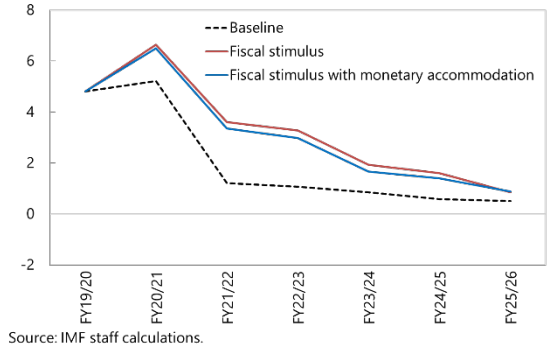
Current Account Balance
(In percent of GDP)



Source: IMF staff calculations.

This could be achieved with a peak increase in the deficit of 2.5 percent of GDP that tapers towards zero starting in FY2023/24 …

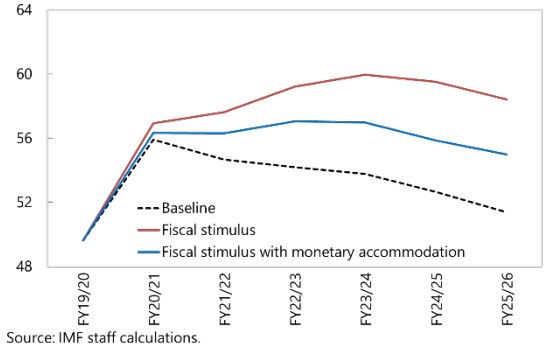
Fiscal Deficit
(In percent of GDP)



Source: IMF staff calculations.

… and having unchanged interest rates would boost nominal GDP through more inflation and real GDP growth, halving the impact on the debt-to-GDP ratio

Public Debt
(In percent of GDP)



Source: IMF staff calculations.

These include an increase in the VAT rate and reforms to the corporate and personal income, and wealth taxes once domestic demand strengthens. Pension reform is critical to managing the expected increase in fiscal spending due to demographic headwinds (health care and pensions expenditure).[8] Sustainability risks of current schemes should also be addressed, including by raising the retirement age and/or the contribution rate. The medium-term fiscal framework should be strengthened by embedding ex ante well-defined escape clauses in the Fiscal Responsibility Law. This will allow for anticipated temporary breaches in fiscal rules, should large shocks materialize (such as future pandemics), thereby reducing uncertainty to the near- to medium-term course of fiscal policy during those shocks. Such escape clauses should be structured to ensure clarity on: the nature and magnitude of the shocks to be accommodated; the length of time over which a deviation is allowed; the maximum magnitude of the deviation from the rule; a requirement to define a path of return to the full observance of the rule; and which authority/ies would be in charge of activating and monitoring the implementation of the clauses.

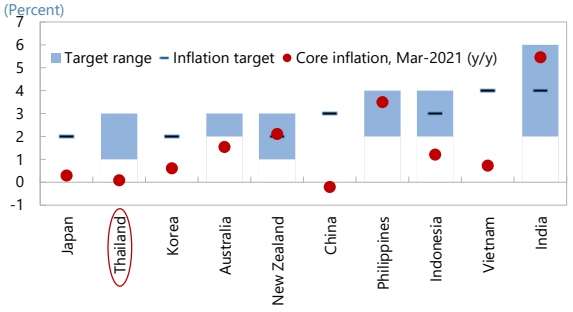
20. The authorities shared staff's view on the central role of fiscal policy to support the recovery. They concurred with the staff's advice for additional fiscal support for the near term and highlighted that the unspent amount of the one trillion baht loan decree will be completely disbursed in 2021 on top of FY 2021 Budget. They also emphasized that the near-term focus is on balancing efforts to stimulate the economy with social protection for the vulnerable groups. Their policy is to publish all COVID-19 projects on a dedicated website and have all such spending audited by the nation's Auditor General. The authorities affirmed their commitment to medium-term prudent fiscal management and fiscal-structural reforms. They also highlighted progress in digitalization to enhance compliance and ease the tax payment process; revisions to the tax law under consideration; rationalization of exemptions; and broader tax reforms with assistance from development partners. The authorities reaffirmed their commitment for infrastructure investments in macro-critical and climate resilient projects in line with the Infrastructure Master Plan. They are cognizant of medium-term spending pressures from demographic shifts and agreed with staff on better expenditure prioritization while providing adequately for infrastructure spending and social safety nets. They also noted that the FRL already includes provisions for fiscal flexibility to adjust the public debt ceiling ex post after a large shock.

21. The authorities agreed on the importance of addressing climate change given Thailand's vulnerability in this area and investing in climate-resilient projects. They highlighted steps taken to facilitate a shift to clean energy such as incentives to encourage renewable energy investments. Furthermore, the automobile and motorcycle excise tax structure incorporate environmental considerations. They noted that a broad-based carbon pricing will take time to implement. In the meantime, legislation is under preparation to assist in developing a more comprehensive carbon footprint reporting for a broad-based carbon pricing regime. They intend to continue their investments to aid an eco-friendly economy that supports mitigation measures and adaptation to climate change.

[8] A fuller assessment of Thailand's pension regime was discussed in Appendix VIII of the IMF Country Report No. 19/309.

C. While Monetary Policy Should Enhance the Efficiency of Intermediation Combined with Continued Easing Bias

22. Monetary policy should focus on prioritizing targeted measures to channel the existing systemic liquidity to credit-constrained firms, combined with further monetary policy easing. With low inflation and continued weakness in the household and corporate financial sectors, staff welcomes the BOT's focus on addressing the impediments to channeling liquidity in the financial system to credit constrained firms through more targeted policies to smaller firms and in more-affected sectors (discussed further in Section D). The BOT should complement these efforts with another 25-basis point policy rate cut to enhance the impact of the financial measures and fiscal stimulus as well as to support a more robust anchoring of inflation expectations that remain fragile in the pandemic setting.



Sources: Haver Analytics; and IMF staff calculations.
Note: Australia and New Zealand based on quarterly data, end-2020. February data for China, India, Japan, and Malaysia. For Vietnam, 4 percent is the ceiling. All countries' targets are based on headline inflation.

23. If downside risks materialize, the BOT should consider unconventional monetary policy (UMP) measures with adequate preparations. Should downside risks materialize and another round of fiscal support be needed, the BOT should be prepared to engage in an asset purchase program focused on high-quality government and corporate paper to maintain accommodative financial conditions. This would also further enhance the impact of the fiscal stimulus by minimizing its crowding out effect and reducing pressures on the baht. The BOT could embark first with quantitative easing (QE) to probe the responsiveness of markets and assess its impact on yields. This could be followed by judicious management of the yield curve with a clearly stated intention to prevent excess volatility in long-term rates. The BOT should support this approach with forward guidance on the state-dependent conditions for adding or withdrawing policy support (Appendix VIII).

24. The exchange rate should continue to act as a shock absorber and foreign exchange intervention (FXI) should be limited to disorderly market conditions (DMC). Given Thailand's relatively liquid FX market, with no strong evidence of FX mismatches that poses systemic risk to the broader financial system (FX liabilities comprised only 0.6 percent of total banking system liabilities as of 2020Q3) and a fairly mature flexible inflation targeting (FIT) regime, FXI should be reserved for addressing DMC. At the same time, it is important to consider interactions of FXI with other policies, including against the backdrop of a stronger external position. In line with the past advice, staff recommends the BOT to publish data on FXI (with an appropriate lag to guard against market sensitivities), which would enhance communication and strengthen the commitment to the inflation target. In staff's view, macroprudential policies (MPP), after addressing leakages in the MPP toolkit, in line with the 2019 FSAP recommendations, are better suited to address financial stability risks than the policy of "Leaning-against-the-wind". Frontloading the implementation of measures to

facilitate FX outflows by the BOT, such as relaxing the annual limit on foreign securities investments abroad by Thai retail investors, is a step in the right direction. Staff welcomes the BOT's recent removal of the limits on non-resident baht accounts for qualifying nonresident firms to facilitate baht liquidity management and recommends additional phasing out of the remaining capital-flow management (CFMs) measures on non-resident baht accounts. A comprehensive package of macroeconomic, financial, and structural policies to address volatile capital flows remains appropriate.

25. The BOT agreed with staff on the need to ensure existing systemic liquidity is equally accessible to SMEs and large firms, while stressing that the current monetary policy stance is appropriately accommodative. There was agreement on the need to ensure that ample liquidity is made available to SMEs in particular, to whom banks have reduced lending. They were of the view that a further interest rate cut at this time was unnecessary and might not work well given that the policy rate is approaching its effective lower bound (ELB). They deem inflation expectations well anchored in the medium term, obviating the need for further easing. The authorities noted the risk of search for yield behavior, including due to prolonged accommodative financial conditions. The BOT confirmed its openness to deploy UMP if downside risks materialize. However, they were of the view that asset purchase programs would be unlikely to have much effect in further easing monetary conditions since the Thai financial system is still heavily bank-based. They welcome the opportunity to collaborate with the Fund on the use of UMPs in EMs and thereby contribute to the intellectual and policy debate in this area.

26. The authorities stressed their commitment to a flexible exchange rate regime and support to the Fund's work on the Integrated Policy Framework (IPF). They emphasized that the IPF has become particularly relevant given the need to respond to the COVID-19 shock without overburdening any single instrument, and the complementary role of monetary and fiscal policies. They noted the importance of country specific characteristics in the choice of optimal policy; in Thailand's case, these include high costs of FX hedging, particularly for smaller firms, longstanding frictions to capital outflows, and the role of offshore markets in driving excessive exchange rate volatility not in line with macroeconomic fundamentals. Therefore, their efforts are aimed towards promoting an FX ecosystem, which is more resilient against volatile exchange rates and capital flows. The BOT reiterated that public disclosure of FX intervention data, even with a lag, might compromise the effectiveness of their FX operations and may induce more speculative activities leading to disorderly exchange rate movements.

D. And Financial Policies Could Focus on Shoring Up Viable Firms

27. Staff supports the authorities' move toward a targeted approach to shore up firms. Measures need to account for the characteristics of SMEs, which make up the majority of Thai firms and employment and have been disproportionately affected by the pandemic. The key principles should aim to limit potential moral hazard, articulate clear eligibility requirements, and exit strategies, and facilitate an efficient reallocation of resources in the economy (Appendix IX). Support should be directed to firms that were viable prior to the COVID-19 shock, with consideration for

those that generate high social value due to linkages with the local economy, particularly employment.

28. Thus, staff recommends a differentiated approach to supporting firms linked to the nature of the pandemic-induced problem. This may be challenging to determine given the high uncertainty, data limitations, and the associated implementation challenges. Soft loans or expenditure deferrals are better suited for solvent firms with pandemic-related liquidity difficulties. Equity injections, particularly via public-private partnerships (PPP), could help contain leverage while encouraging risk sharing, if proper safeguards are in place to mitigate contingent liability and governance risks (Appendix IX). Support could be phased and contingent on meeting preset performance markers. Debt restructuring would be better suited for firms that have become insolvent, including through informal and simplified out of court resolution frameworks where feasible. In sectors that are likely to contract after the pandemic, such as tourism, support to firms should focus on adapting their business models and retraining staff to ensure continued viability while disincentivizing zombie firms. Staff recommends developing an exit strategy for the public sector from any "bailed-out" companies and monitoring the fiscal risk to ensure the overall effectiveness of public funding.

29. Measures are needed to shield the financial system from a potential deterioration in asset quality and address the household debt overhang. Banks and non-banks should be encouraged to cautiously provision in case of a downside risk scenario with potential for asset quality deterioration, while improving timely information gathering to assess credit risk, particularly in SMEs. Any regulatory forbearance measures should be rolled back when appropriate with exit clearly calibrated and communicated. Addressing the household debt overhang should involve avoiding formal bankruptcy or facilitating recovery after bankruptcy. In addition, preventing the excessive accumulation of debt as well as enhancing efficient restructuring and resolution options would also be important. The expansion of the eligibility criteria for the BOT Debt Clinic is a welcome step. As recovery takes hold, the authorities could consider encouraging the early consolidation of household debt; strengthening lending standards in view of the prolonged low interest rate environment; enhancing information gathering to facilitate credit risk assessment; and continuing the ongoing financial literacy programs, particularly among those employed in the informal sector.

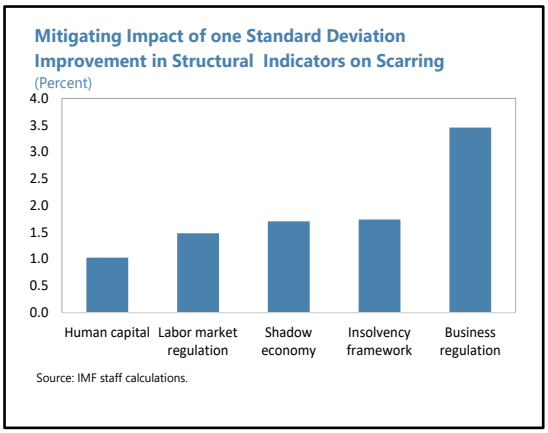
30. Staff welcomes the authorities' recent steps taken to continue strengthening their AML/CFT framework in line with the 2019 FSAP recommendations. Staff recommends that the authorities continue to address issues raised in the latest Asia/Pacific Group (APG) assessment report. These include transparency and availability of beneficial ownership information of legal entities, and AML/CFT risk-based supervision to ensure that financial institutions effectively comply with preventive measures.

31. The authorities broadly agreed on the characterization of financial sector risks. They remain committed to using a multipronged and more targeted approach to assist corporates through the recovery. The authorities recently announced two new measures designed to support and transform viable businesses for the post COVID-19 world. These measures include the special loan facility for business with credit guarantee scheme and debt restructuring through asset

warehousing with buy-back options. To address elevated household debt, a series of measures, such as proactive debt restructuring, debt service deferment, and enhanced eligibility for the Debt clinic have been undertaken. Moreover, the BOT signed an MOU with the Office of the Court of Justice to mediate legal financial disputes out of court for financially distressed borrowers and SMEs. The Thai Financial Reporting Standard 9 (TFRS9) has come into effect since January 2020 and all financial institution accounting and reports, including asset classification and provisioning have been prepared in compliance with the standard. Regulatory relaxation undertaken in response to the pandemic are temporary in nature and in line with the practices of other financial regulators.

E. With Structural Policies Focusing on Limiting Economic Scarring

32. Concerted efforts are needed to address long-standing structural challenges and limit long-term economic damage from the pandemic. Active labor market policies should be enhanced in a coordinated fashion with information sharing across government agencies to upskill workers dislocated by the pandemic and streamline labor and business regulations to facilitate resource reallocation toward expanding and more viable sectors (Appendix IV). This will also incentivize movement from informal to formal employment, thereby raising aggregate productivity and potential growth and facilitating external rebalancing.



33. Coordinated and multi-pronged policies are needed to heal pandemic-induced scars on tourism over the medium term.[9] A move to lower-density tourism with higher unit revenue might help reduce the potential health risks from mass travel and foster a greener recovery. These could include tapping luxury markets, adopting digital infrastructure and upskilling workers to provide higher value-added services, and having clear and accessible health policies for visitors that reduce uncertainty and boost traveler confidence. Implementation of these policies should also aim to address the high level of concentration of tourism related activities in selected cities. All these measures would require incentivizing further private investment in the sector, and government supported initiatives to address informational asymmetry in this highly informal sector, such as PPPs or government guarantees, can play an important role. This would enhance the sector's linkages to the rest of the economy and boost inclusive growth over the medium term.

34. The authorities noted that upskilling the labor force to meet demands from fast growing digitalization, limit scarring, and reduce inequality is high on their agenda. Therefore, in collaboration with universities and the private sector, they have established online training and job-matching platforms and organized Job Expo to help workers dislocated by the pandemic to return to employment and meet skill demands from fast-growing digitalization. At the same time, the authorities recognize the need for a smart regulation especially in immigration policy for

[9] Staff analysis of the impacts from COVID-19 on tourism in the Asia-Pacific and Caribbean economies, with policies and reforms to mitigate the impact on output and jobs, can be found here.

high-skilled workers. In addition, the government in cooperation with the EEC infrastructure projects, offers demand-driven human resource development programs. The authorities see the crisis as an opportunity to transform the tourism sector from mass and low-cost to high-end and low-density tourism while encouraging domestic tourism, to reduce the sector's dependence on tourism-related infrastructure and natural resources.

F. All Supported by the Fund's Capacity Development and Surveillance Integration

35. The Fund's capacity development (CD) work is supportive of both surveillance advice and the authorities' policy agenda. The Fund's 2018 CD work on public investment management assessment (PIMA) provided the authorities with a road map for improving the implementation of the public investment program and remain relevant. The authorities find useful CD on improving the targeting of welfare programs, while CD in the areas of pension reform should provide guidance on managing the fiscal pressures from aging. The ongoing technical support for the BOT's macro-modelling work bodes well for the Fund's workstream in the operationalization of the integrated policy framework (IPF).

STAFF APPRAISAL

36. Staff commends the authorities' timely and multipronged policy support, which helped to cushion the impact of the pandemic. The fiscal expansion implemented by the government, combined with the monetary policy easing, and measures to buttress the smooth functioning of financial markets by the BOT, cushioned the negative impact of the pandemic on households, including those outside the social security system, and firms.

37. Economic recovery is expected to be slow, uneven, and clouded by multiple risks. A gradual pickup in domestic demand and rebound in goods exports in line with strong trading partner growth will support the recovery. The drag on contact-intensive sectors, particularly tourism, is expected to continue for most of 2021 due to uncertainties around vaccine rollouts and full resumption of global travel. Staff welcomes the important measures taken by the authorities aimed at inoculating almost half of the population by the end-2021, which will lay the groundwork for the recovery. Core inflation dynamics will remain subdued given the continued slack in the economy. The economic outlook is subject to heightened uncertainty, and both distributional and long-term scarring risks loom large. In the medium-term, a better-than-expected recovery in trading partners economies could generate positive growth spillovers through trade.

38. The external position in 2020 was stronger than warranted by medium-term fundamentals and desirable policies. Structural factors are behind Thailand's persistent savings-investment gap, suggesting a need for substantive policy efforts to boost domestic demand, which combined with the needed medium-term real appreciation, would contribute to addressing the external imbalances.

39. Fiscal policy should be the major buttress to support the recovery. A more ambitious fiscal expansion focused on scaling up of public investment and protecting the vulnerable through better targeted social transfers would help accelerate the recovery. Premature tapering of the pandemic-related policy support should be avoided. To maximize the efficiency of public spending, all COVID-19-related spending should follow strict guidelines for fiscal transparency and accountability, and bottlenecks in executing infrastructure spending should be addressed. The ambitious fiscal expansion should be accompanied with a comprehensive medium-term consolidation strategy to rebuild buffers and preserve fiscal sustainability. The authorities' commitment to use the COVID-19 crisis as an opportunity to adopt well designed green policies to create jobs, lift growth and enhance economic resilience, is welcomed.

40. Staff welcomes the authorities' targeted policy measures to enhance the efficiency of intermediation and shore up viable firms. Measures need to account for the characteristics of SMEs, which make up the majority of Thai firms and employment and have been disproportionality affected by the pandemic. These efforts should be complemented with another 25-basis point policy rate cut. The BOT should consider interactions of FXI with other policies, including against the backdrop of a stronger external position and reserve FXI for addressing disorderly market conditions. Staff recommends that the remaining CFM measures on non-resident baht accounts be phased out. If downside risks materialize, the authorities should temporarily upgrade the fiscal support measures, with more emphasis on targeted intervention, complemented with unconventional monetary policy to enhance the impact of the additional fiscal stimulus.

41. Financial stability risks appear contained, although pockets of vulnerability are building up. Household and nonfinancial corporate debt overhang should be addressed through multipronged measures that facilitate recovery after bankruptcy or avoid formal bankruptcy altogether.

42. Coordinated and multipronged policies are needed to heal pandemic-induced scars on the economy and address long-standing structural challenges. Active labor market policies should be enhanced in a coordinated fashion with information sharing across government agencies to upskill workers dislocated by the pandemic, which combined with streamlining labor and business regulations, will facilitate resource reallocation toward expanding and more viable sectors. Government-supported initiatives are needed to incentivize further private investment towards a lower-density tourism with higher unit revenue, which would help reduce the potential health risks from mass travel and foster a greener recovery.

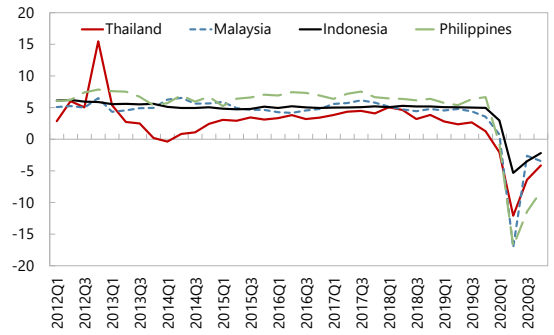
43. The Fund's capacity development (CD) work remains supportive of the surveillance advice and the authorities' policy agenda. The CD priorities relate to enhancing the targeting of the social safety nets and pension reform to help manage the fiscal pressures from aging. The ongoing Fund technical support to the BOT on macroeconomic modelling bodes well for the operationalization of the IPF.

44. It is recommended that the next Article IV consultation with Thailand take place on a standard 12-month cycle.

Figure 2. Thailand: Real Sector and Price Dynamics

Real GDP growth in Thailand collapsed the most in ASEAN during the COVID-19 pandemic …

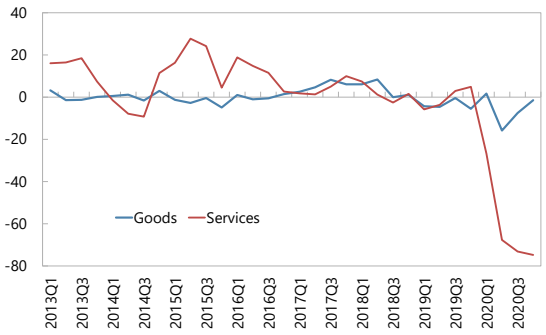
Real GDP growth
(Y/y percent change)



Source: Haver

… with a strong negative contribution from exports, especially services, led by tourism …

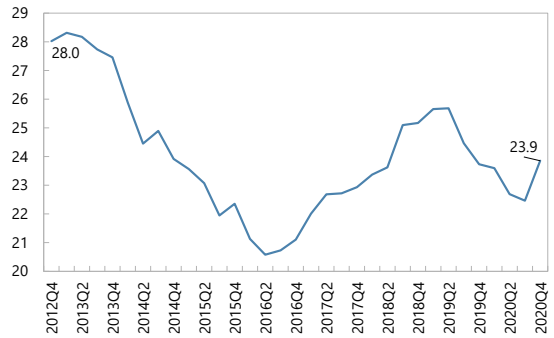
Real Exports Growth
(Y/y percent change)



Sources: Thai authorities; and IMF staff calculations.

… which exacerbated the downward trend in gross investment, …

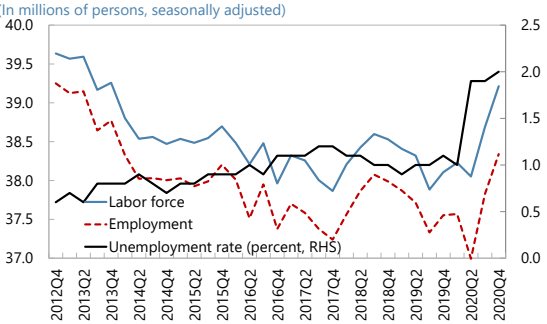
Gross Investment
(In percent of GDP)



Sources: Thai authorities; and IMF staff calculations.

… pushed up unemployment.

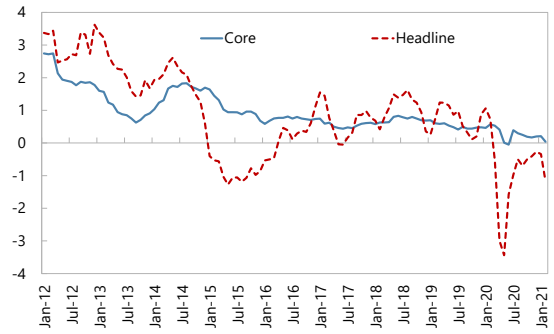
Labor Market[1]
(In millions of persons, seasonally adjusted)



Source: Haver Data Analytics.
[1] All series are affected by a methodological break in 2014 Q1 as the methodology for calculating the population structure was modified.

In response, in 2020, inflation weakened, with headline pulled down by the global oil price collapse …

Inflation
(Y/y percent change)



Source: Haver Data Analytics.

… with interest rates cut to record lows.

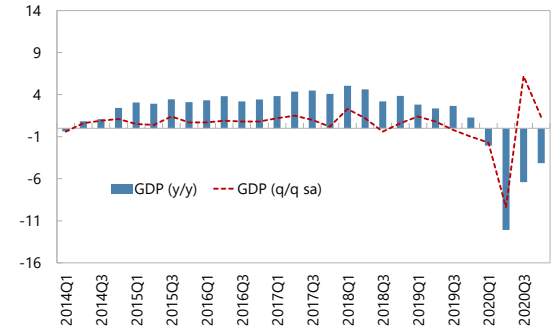
Interest Rate
(10-year bond yield, percent)

Source: Haver Data Analytics.

Figure 3. Thailand: Macro-Fiscal Developments

GDP was particularly impacted in 2020Q2, with a strong rebound in Q3.

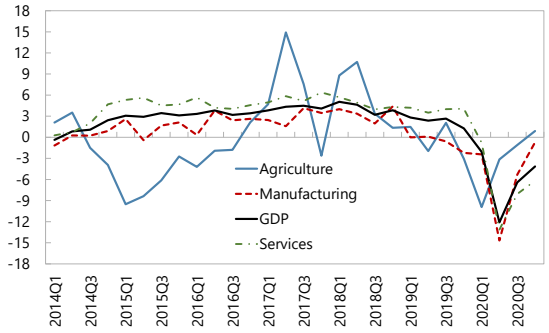
Real GDP Growth
(Percent)



Sources: Thai authorities; CEIC Data Co. Ltd; and IMF staff calculations.

Manufacturing and services sectors took the hardest hit.

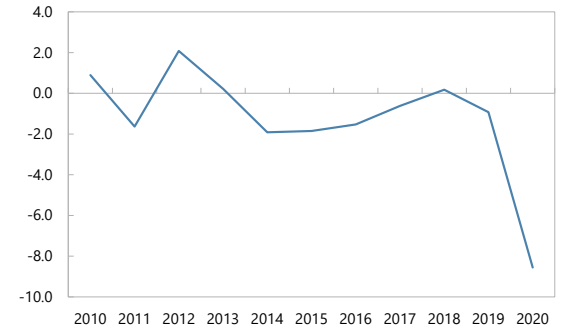
Real GDP Growth (Supply Side)
(Y/y percent change)



Sources: Thai authorities; CEIC Data Co. Ltd; and IMF staff calculations.

The output gap widened significantly in 2020.

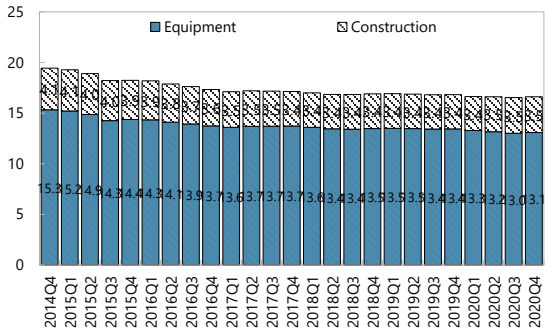
Output Gap
(Percent of potential GDP)



Source: IMF staff calculations.

Private fixed investment has remained relatively strong.

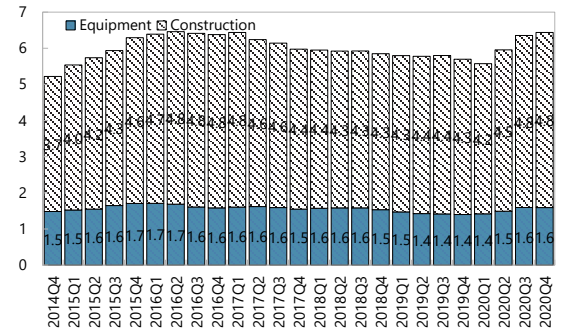
Private Fixed Investment
(Percent of GDP; sum of last 4 quarters)



Sources: Thai authorities; CEIC Data Co. Ltd; and IMF staff calculations.

...while public investment increased reflecting policy efforts to revive the crisis-hit economy...

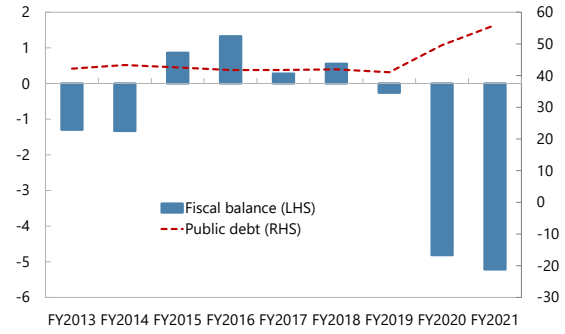
Public Fixed Investment
(Percent of GDP; sum of last 4 quarters)



Sources: Thai authorities; CEIC Data Co. Ltd; and IMF staff calculations.

... as a result, public debt increased in 2020.

Fiscal Balance and Public Debt
(Percent of GDP)



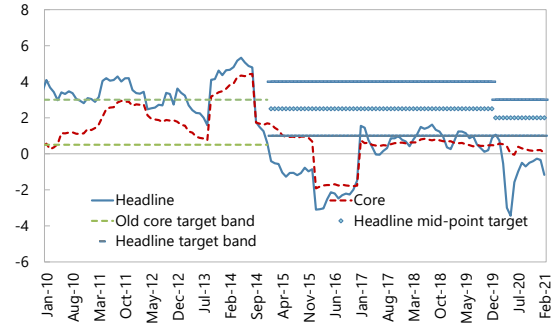
Sources: Thai authorites; and IMF staff calculations.

Figure 4. Thailand: Inflation and Inflation Expectations

Inflation remains below the BOT's target range …

Headline and Core CPI Inflation

(Y/y percent change)

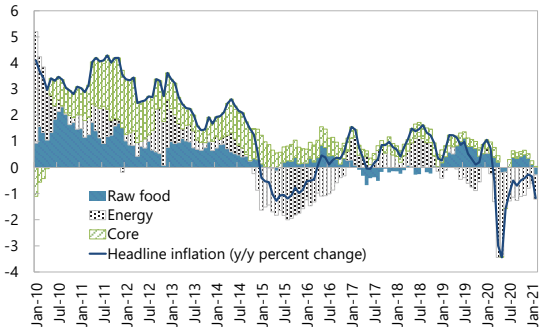


Sources: CEIC Data Co. Ltd.; and IMF staff calculations.

… as energy prices collapsed during the pandemic and core stayed weak.

Contributions to Headline Inflation

(In percentage points)

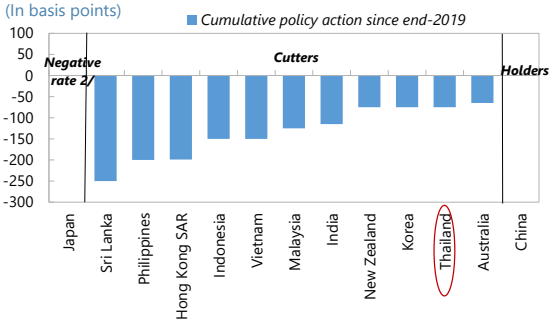


Sources: Haver Data Analytics; and IMF staff calculations.

Consequently, the BOT cut the policy rate by 0.75 percent, following its peers and reaching 0.50 percent.

Selected Asia: Policy Rate Actions 1/

(In basis points)

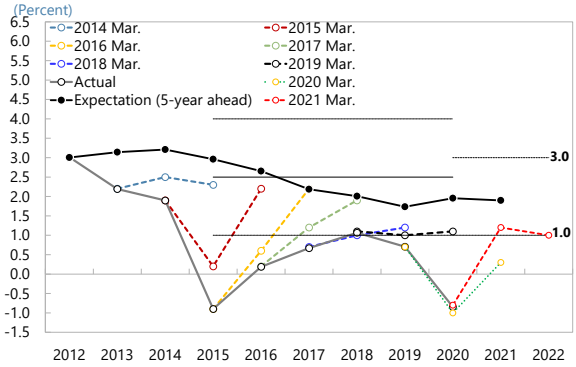


Sources: Haver Analytics; Bloomberg L.P.; and IMF staff calculations.
1/ Cutters/holders are classified based on policy action since December 2019.
2/ Japan announced negative rates on some bank excess reserves on January 29, 2016.

Supporting inflation expectations that remain fragile in a pandemic environment.

Headline Inflation: BOT Forecast, Actual, and Expectation

(Percent)

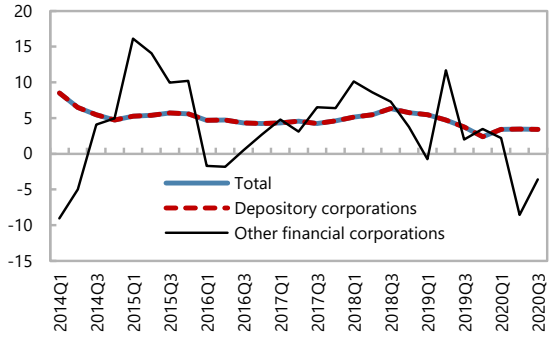


Sources: Bank of Thailand; Haver Analytics; Consensus Economics, Inc.; and IMF staff calculations.

Figure 5. Thailand: Financial Sector Developments

Credit growth held up…

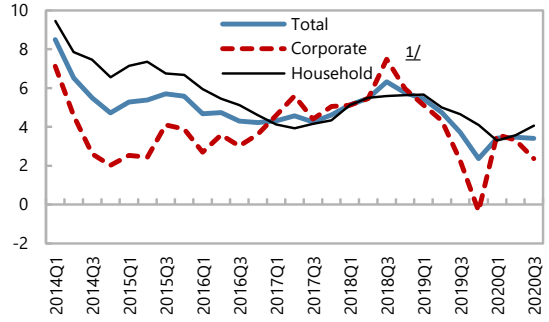
Credit Growth
(Y/y percent change)



Sources: CEIC Data Co. Ltd; and IMF staff calculations.

…driven by households and large corporates

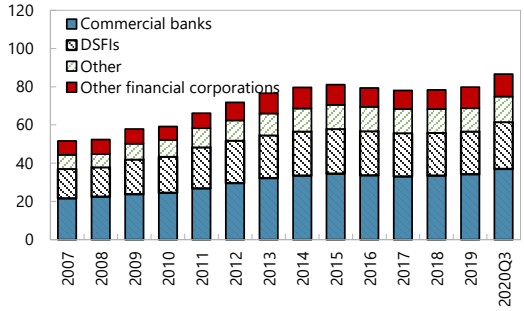
Credit Growth by Sector
(Y/y percent change)



Sources: CEIC Data Co. Ltd; and IMF staff calculations.
1/ Excludes external debt.

Household debt relative to GDP reached the highest level since 2003…

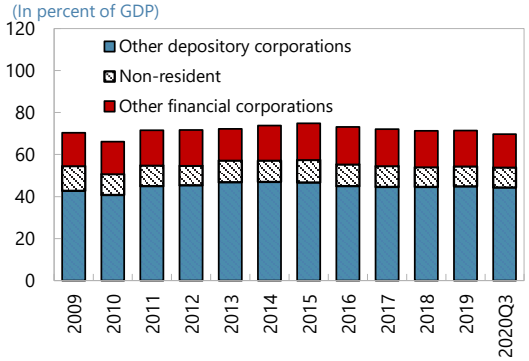
Household Debt
(In percent of GDP)



Sources: Bank of Thailand; CEIC Data Analytics; and IMF staff calculations.

…while corporate sector debt remained largely unchanged.

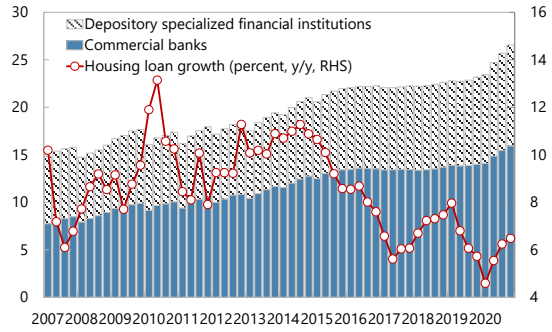
Corporate Debt
(In percent of GDP)



Sources: Bank of Thailand; CIEC data Analytics; and IMF staff calculations.

Demand for housing loans picked up in 2020H1…

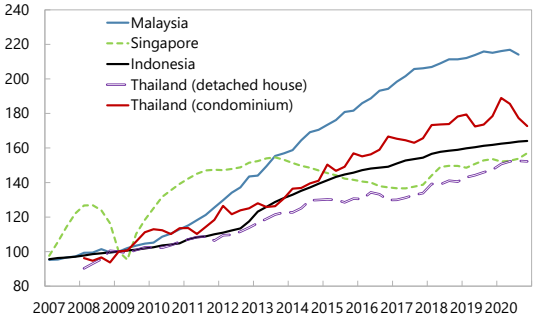
Housing Loans
(In percent of GDP)



Sources: Bank of Thailand; and IMF staff calculations.

… while housing prices started moderating in recent months.

House Price Index 1/
(2009:Q1=100)

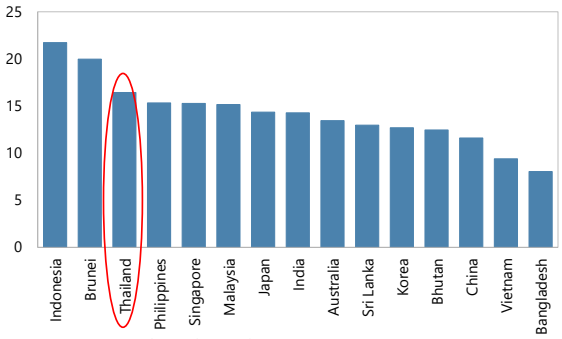


Sources: Haver Analytics; and IMF staff calculations.
1/ Quarterly averages. House price indices for Thailand start in 2008:Q1.

Figure 6. Thailand: Financial Soundness Indicators of Commercial Banks 1/

Commercial banks have ample capital …

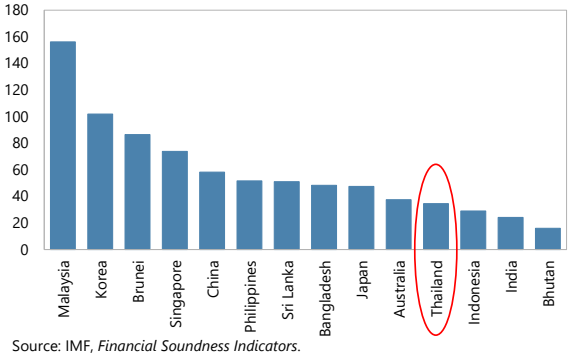
Regulatory Tier 1 Capital to Risk-Weighted Assets
(In percent)



Source: IMF, *Financial Soundness Indicators.*

… though they rely more on short-term liabilities than commercial banks in other countries.

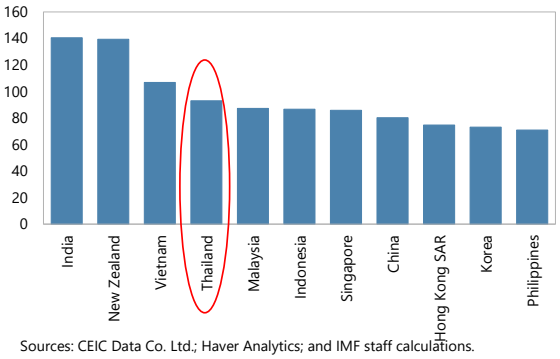
Liquid Assets to Short-Term Liabilities
(In percent)



Source: IMF, *Financial Soundness Indicators.*

Thailand's loan to deposit ratio remains high …

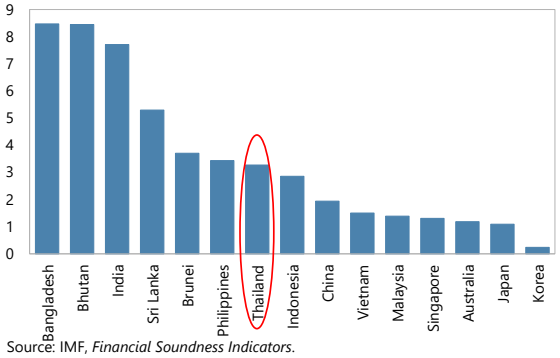
Loans to Deposits
(In percent)



Sources: CEIC Data Co. Ltd.; Haver Analytics; and IMF staff calculations.

… and NPLs are well contained.

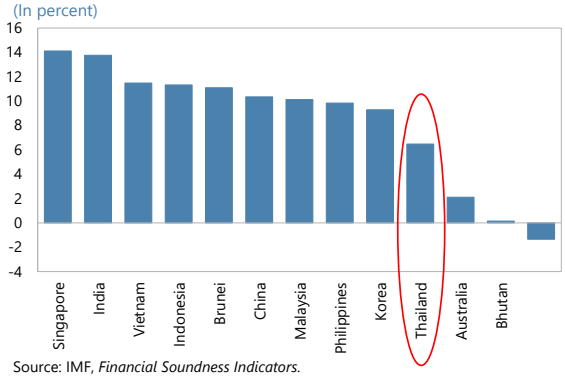
Nonperforming Loans to Total Gross Loans
(In percent)



Source: IMF, *Financial Soundness Indicators.*

Profitability remains sound, as shown by return on equity…

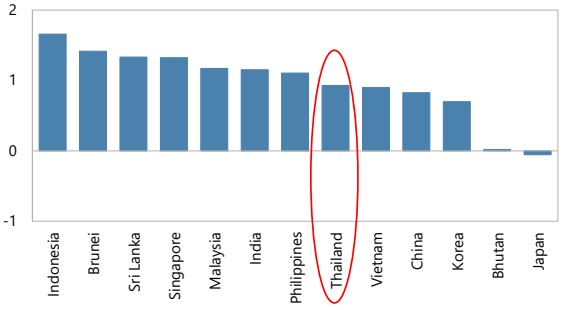
Return on Equity
(In percent)



Source: IMF, *Financial Soundness Indicators.*

… and return on assets.

Return on Assets
(In percent)



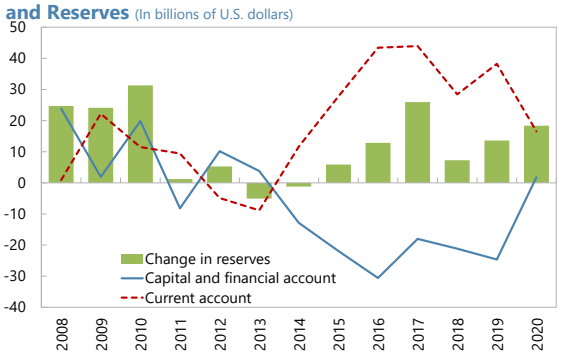
Source: IMF, *Financial Soundness Indicators.*

1/ 2020Q3 or latest available.

Figure 7. Thailand: External Sector Developments

The current account surplus declined sharply in 2020, while reserves increased.

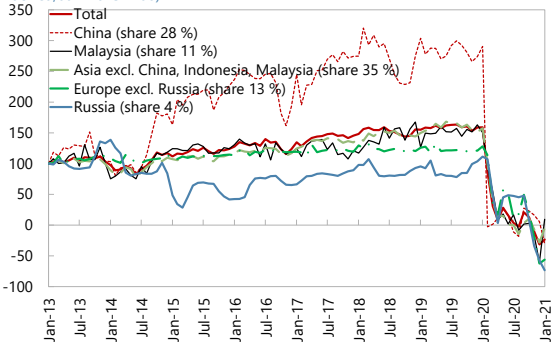
Current Account, Capital and Financial Account, and Reserves (In billions of U.S. dollars)



Sources: CEIC Data Company Ltd.; and IMF staff calculations.

Tourist arrivals collapsed through the year.

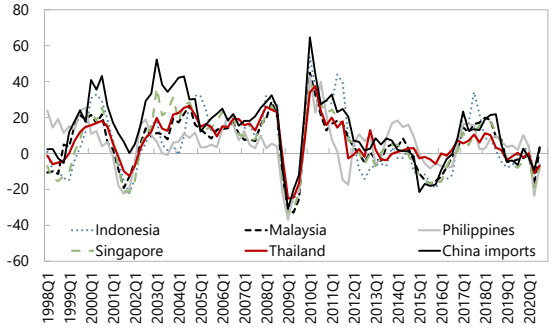
Tourist Arrivals
(Index sa, Jan-2013=100)



Sources: Haver Data Analytics; and IMF staff calculations.

Exports were dragged down in 2020H1 due to weak external demand, but began to recover toward year end

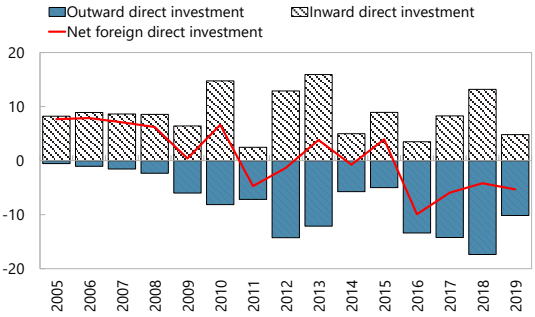
ASEAN-5 Export Growth and China's Imports
(Y/y percent change)



Sources: IMF, *Direction of Trade*; and IMF staff calculations.

The fall in inward investment more than offset the decline in outward investment.

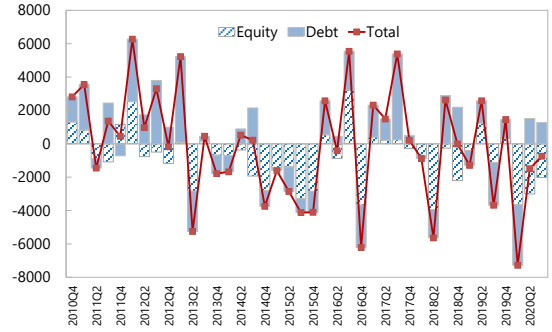
Inward and Outward Direct Investment
(In billions of U.S. dollars)



Sources: Haver Data Analytics; and IMF staff calculations.

The first half of the 2020 saw a significant outflow of capital…

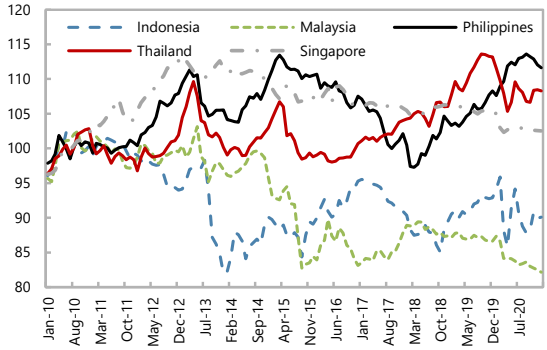
Nonresident Equity and Bonds Inflows
(In millions of U.S. dollars)



Sources: Bank of Thailand; Haver Data Analytics; and IMF staff calculations.

…leading to depreciation of real effective exchange rate, which mostly reversed through second half of the year.

ASEAN-5: Real Effective Exchange Rate
(2010=100)



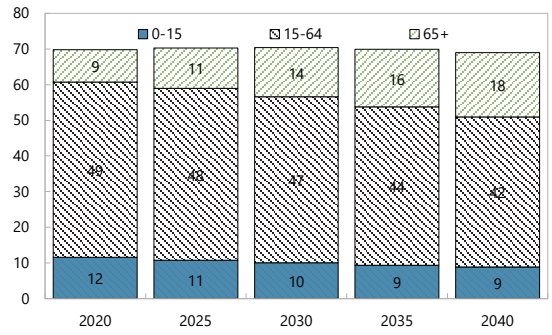
Source: IMF stafff calculations.

Figure 8. Thailand: Structural Challenges

Thailand is one of the fastest aging populations in Asia.

Projected Composition of Population

(In millions of persons)

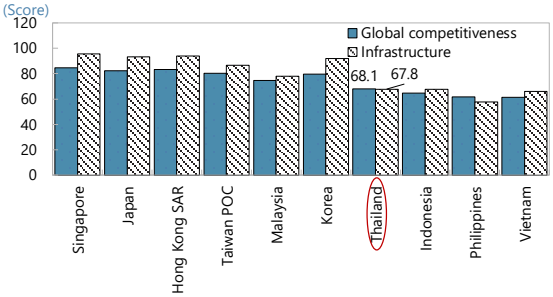


Source: United Nations, 2019 estimates.

Relative to peers, Thailand has room to improve infrastructure and its overall global competitiveness.

Global Competitiveness and Infrastructure

(Score)

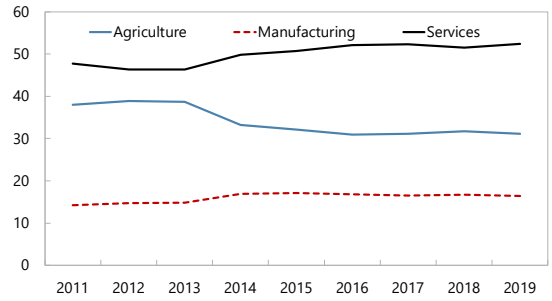


Source: World Economic Forum, *Global Competitiveness Report 2019*. The Global Competitiveness Index 4.0 is based on the official data and opinion survey of business executives and assesses the microeconomic and macroeconomic foundations of national competitiveness, which defined as the set of institutions, policies, and factors that determine the level of productivity of a country.

Services dominate employment…

Employment by Sector[1]

(In percent of total employment)



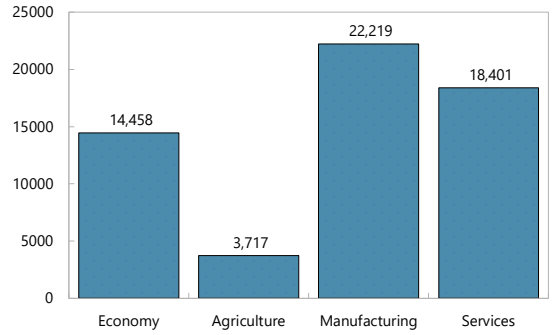
Source: Haver Data Analytics.

[1] All series are affected by a methodological break in 2014 Q1 as the methodology for calculating the population structure was modified.

Agriculture lags other sectors in productivity

Value of Output per Worker, 2019

(In U.S. dollars)

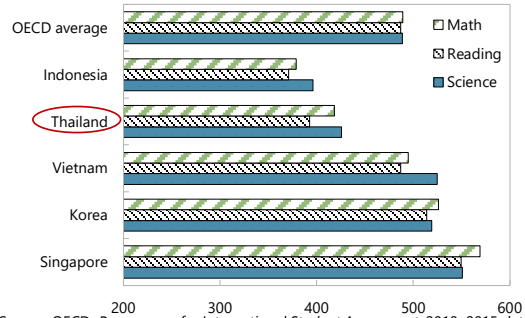


Sources: Thai authorities; Haver Data Analytics; and IMF staff calculations.

Thailand lags competitors in educational attainment.

Selected Countries: PISA Scores

(Mean score)

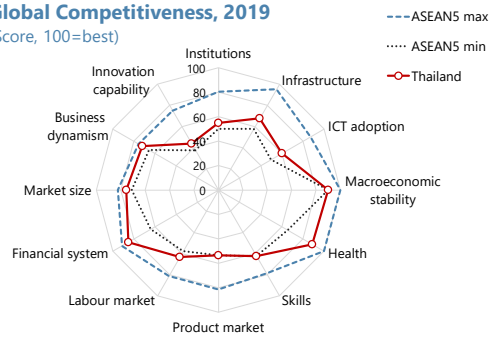


Source: OECD, *Programme for International Student Assessment*, 2018. 2015 data for Vietnam.

Key areas to improve competitiveness include ICT adoption and innovation capacity.

Global Competitiveness, 2019

(Score, 100=best)



Source: World Economic Forum, *Global Competitiveness Report 2019*. The Global Competitiveness Index 4.0 is based on the official data and opinion survey of business executives and assesses the microeconomic and macroeconomic foundations of national competitiveness, which is defined as the set of institutions, policies, and factors that determine the level of productivity of a country.

Table 1. Thailand: Selected Economic Indicators, 2017–22

Main exports (percent of total 2019): machinery (43), food (13)
GDP per capita (2019): US$7,815
Unemployment rate (2019): 1 percent
Poverty headcount ratio at national poverty line (2016A1): 8.6 percent
Net FDI (2019): US$-5.33 billion
Population (2019): 66.6 million

					Projections	
	2017	2018	2019	2020	2021	2022
Real GDP growth (y/y percent change) 1/	4.2	4.2	2.3	-6.1	2.6	5.6
Consumption	2.4	4.2	3.4	-0.6	3.7	2.7
Gross fixed investment	1.8	3.8	2.0	-4.8	5.3	3.3
Inflation (y/y percent change)						
Headline CPI (end of period)	0.8	0.4	0.9	-0.3	1.0	1.1
Headline CPI (period average)	0.7	1.1	0.7	-0.8	1.3	1.0
Core CPI (end of period)	0.6	0.7	0.5	0.2	0.7	1.0
Core CPI (period average)	0.6	0.7	0.5	0.3	0.5	0.9
Saving and investment (percent of GDP)						
Gross domestic investment	22.9	25.2	23.7	23.9	24.4	23.8
Private	17.1	16.9	16.8	16.6	17.5	17.2
Public	6.0	5.9	5.7	6.4	6.9	6.7
Change in stocks	-0.2	2.4	1.2	0.8	0.0	0.0
Gross national saving	32.6	30.8	30.8	27.1	24.9	26.5
Private, including statistical discrepancy	26.7	25.3	26.7	25.4	22.8	22.1
Public	5.8	5.5	4.1	1.7	2.0	4.4
Foreign saving	-9.6	-5.6	-7.0	-3.2	-0.5	-2.6
Fiscal accounts (percent of GDP) 2/						
General government balance 3/	-0.4	0.1	-0.8	-4.7	-4.9	-1.5
SOEs balance	0.7	0.5	0.6	-0.1	-0.3	0.3
Public sector balance 4/	0.3	0.6	-0.3	-4.8	-5.2	-1.2
Public sector debt (end of period) 4/	41.8	42.0	41.0	49.6	55.9	54.7
Monetary accounts (end of period, y/y percent change)						
Broad money growth	5.0	4.7	3.6	10.1	1.2	3.2
Narrow money growth	9.4	2.8	5.7	14.2	3.5	6.1
Credit to the private sector by depository corporations	4.6	5.8	2.4	4.5	3.5	6.1
Balance of payments (billions of U.S. dollars)						
Current account balance	44.0	28.4	38.2	16.3	2.4	15.3
(In percent of GDP)	9.6	5.6	7.0	3.2	0.5	2.6
Exports, f.o.b.	233.7	251.1	242.7	226.7	250.2	261.9
Growth rate (dollar terms)	9.5	7.5	-3.3	-6.6	10.4	4.6
Growth rate (volume terms)	5.3	3.9	-3.7	-5.9	8.8	4.7
Imports, f.o.b.	201.1	228.7	216.0	186.9	215.3	226.2
Growth rate (dollar terms)	13.2	13.7	-5.6	-13.5	15.2	5.0
Growth rate (volume terms)	7.2	7.7	-5.7	-11.7	4.4	5.7
Capital and financial account balance 5/	-18.0	-21.2	-24.6	2.1	-2.4	-15.3
Overall balance	26.0	7.3	13.6	18.4	0.0	0.0
Gross official reserves (including net forward position, end of period) (billions of U.S. dollars)	239.3	239.4	258.7	287.4	287.4	287.4
(Months of following year's imports)	12.6	13.3	16.6	16.0	15.2	14.2
(Percent of short-term debt) 6/	326.8	288.4	325.3	313.6	334.4	311.6
Forward position of BOT (end of period)	-36.7	-33.7	-34.3	-29.3	...	...
Exchange rate (baht/U.S. dollar)	33.9	32.3	31.0	31.3	...	...
NEER appreciation (annual average)	4.4	4.0	6.9	-0.5	...	...
REER appreciation (annual average)	3.2	3.0	5.6	-2.6	...	...
External debt						
(In percent of GDP)	34.2	32.2	31.6	37.9	36.2	36.0
(In billions of U.S. dollars)	155.9	163.1	171.9	190.0	195.1	208.1
Public sector 7/	31.6	35.7	38.0	37.0	36.7	36.4
Private sector	124.4	127.4	133.9	147.6	158.4	171.7
Medium- and long-term	59.7	65.9	74.6	76.1	92.0	99.5
Short-term (including portfolio flows)	64.7	61.5	59.3	71.5	66.4	72.2
Debt service ratio 8/	5.8	6.0	6.3	6.3	7.3	7.3
Memorandum items:						
Nominal GDP (billions of baht)	15,488.7	16,368.7	16,896.3	15,703.0	16,245.2	17,244.0
(In billions of U.S. dollars)	456.5	506.4	544.2	501.9	...	...

Sources: Thai authorities; CEIC Data Co. Ltd.; and IMF staff estimates and projections.

1/ This series reflects the new GDP data based on the chain volume measure methodology, introduced by the Thai authorities in May 2015.
2/ On a fiscal year basis. The fiscal year ends on September 30.
3/ Includes budgetary central government, extrabudgetary funds, and local governments.
4/ Includes general government and SOEs.
5/ Includes errors and omissions.
6/ With remaining maturity of one year or less.
7/ Excludes debt of state enterprises.
8/ Percent of exports of goods and services.

Table 2. Thailand: Macroeconomic Framework, 2016–26

						Projections					
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Real GDP growth (y/y percent change)	3.4	4.2	4.2	2.3	-6.1	2.6	5.6	3.8	3.5	3.6	3.6
Consumption	2.7	2.4	4.2	3.4	-0.6	3.7	2.7	3.3	3.3	3.7	3.6
Gross fixed investment	2.9	1.8	3.8	2.0	-4.8	5.3	3.3	3.8	3.4	3.8	4.0
Headline CPI inflation (period average, y/y percent change)	0.2	0.7	1.1	0.7	-0.8	1.3	1.0	1.2	1.6	1.8	1.9
Core CPI inflation (period average, y/y percent change)	0.7	0.6	0.7	0.5	0.3	0.5	0.9	1.9	2.1	1.7	1.9
Saving and investment (percent of GDP)											
Gross domestic investment	21.1	22.9	25.2	23.7	23.9	24.4	23.8	23.9	24.1	24.3	24.6
Private	17.3	17.1	16.9	16.8	16.6	17.5	17.2	17.3	17.6	17.8	18.1
Public	6.4	6.0	5.9	5.7	6.4	6.9	6.7	6.6	6.5	6.5	6.5
Change in stocks	-2.6	-0.2	2.4	1.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0
Gross national saving	31.6	32.6	30.8	30.8	27.1	24.9	26.5	27.1	27.8	27.9	27.8
Private, including statistical discrepancy	24.3	26.7	25.3	26.7	25.4	22.8	22.1	22.6	23.1	23.2	23.2
Public	7.3	5.8	5.5	4.1	1.7	2.0	4.4	4.5	4.7	4.7	4.6
Foreign saving (- = current account surplus)	-10.5	-9.6	-5.6	-7.0	-3.2	-0.5	-2.6	-3.2	-3.7	-3.5	-3.2
Fiscal accounts (percent of GDP, fiscal year basis)											
Central government budgetary balance	-2.3	-2.4	-2.5	-2.6	-5.0	-4.0	-3.6	-3.9	-4.2	-4.4	-4.4
General government balance	0.6	-0.4	0.1	-0.8	-4.7	-4.9	-1.5	-1.4	-1.2	-1.2	-1.1
Revenue and grants	21.9	21.1	21.4	21.0	20.6	21.1	21.6	21.8	21.9	21.9	21.9
Expense and net acquisition of nonfinancial assets	21.3	21.5	21.4	21.8	25.3	25.9	23.1	23.2	23.2	23.1	23.1
Public sector balance	1.3	0.3	0.6	-0.3	-4.8	-5.2	-1.2	-1.1	-0.8	-0.6	-0.5
Non-financial public enterprise balance	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
Public sector debt (end of period)	41.7	41.8	42.0	41.0	49.6	55.9	54.7	54.2	53.8	52.7	51.4
Balance of payments (billions of U.S. dollars)											
Exports, f.o.b.	213.5	233.7	251.1	242.7	226.7	250.2	261.9	276.2	293.9	312.7	331.2
(Volume growth)	0.5	5.3	3.9	-3.7	-5.9	8.8	4.7	4.6	4.3	4.4	4.3
Imports, f.o.b.	177.7	201.1	228.7	216.0	186.9	215.3	226.2	242.4	260.6	279.0	299.4
(Volume growth)	-2.5	7.2	7.7	-5.7	-11.8	4.4	5.7	6.4	6.0	5.3	5.3
Trade balance	35.8	32.6	22.4	26.7	39.8	34.9	35.7	33.8	33.3	33.7	31.8
Services, income, and transfers	7.7	11.4	6.0	11.5	-23.5	-32.4	-20.4	-14.5	-10.0	-10.0	-9.0
Current account balance	43.4	44.0	28.4	38.2	16.3	2.4	15.3	19.3	23.3	23.7	22.8
(Percent of GDP)	10.5	9.6	5.6	7.0	3.2	0.5	2.6	3.2	3.7	3.5	3.2
Financial account balance 1/	-30.6	-18.0	-21.2	-24.6	2.1	-2.4	-15.3	-19.3	-23.3	-23.7	-22.8
Overall balance	12.8	26.0	7.3	13.6	18.4	0.0	0.0	0.0	0.0	0.0	0.0
Gross official reserves (including net forward position, billions of U.S. dollars)	197.6	239.3	239.4	258.7	287.4	287.4	287.4	287.4	287.4	287.4	287.4
External debt											
External debt (billions of U.S. dollars)	132.8	155.9	163.1	171.9	190.0	195.1	208.1	222.9	239.5	257.8	277.9
External debt (percent of GDP)	32.1	34.2	32.2	31.6	37.9	36.2	36.0	36.7	37.6	38.5	39.5

Sources: Data provided by the Thai authorities; CEIC Data Co. Ltd.; and IMF staff estimates and projections.

1/ Includes errors and omissions.

Table 3. Thailand: Balance of Payments, 2015–26 1/

							Projections					
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	(In billions of U.S. dollars)											
Current account balance	**27.8**	**43.4**	**44.0**	**28.4**	**38.2**	**16.3**	**2.4**	**15.3**	**19.3**	**23.3**	**23.7**	**22.8**
Trade balance	26.1	35.8	32.6	22.4	26.7	39.8	34.9	35.7	33.8	33.3	33.7	31.8
Exports, f.o.b.	213.4	213.5	233.7	251.1	242.7	226.7	250.2	261.9	276.2	293.9	312.7	331.2
Imports, f.o.b.	187.2	177.7	201.1	228.7	216.0	186.9	215.3	226.2	242.4	260.6	279.0	299.4
Services balance	15.6	20.3	24.3	22.5	24.3	-15.2	-25.4	-10.8	-4.2	2.3	3.4	4.7
Of which: tourism receipts	41.2	44.8	52.4	56.4	59.8	12.4	6.0	26.2	38.7	48.5	52.8	57.0
Primary Income balance	-20.6	-19.4	-20.5	-24.5	-20.0	-14.2	-17.4	-19.0	-19.9	-22.1	-23.6	-23.9
Secondary Income balance	6.7	6.8	7.5	8.0	7.2	5.9	10.4	9.4	9.6	9.8	10.2	10.2
Capital and financial account balance	**-16.8**	**-20.2**	**-10.6**	**-13.8**	**-15.7**	**-3.5**	**-2.4**	**-15.3**	**-19.3**	**-23.3**	**-23.7**	**-22.8**
Foreign direct investment	3.9	-9.9	-5.9	-4.2	-5.3	-22.8	-24.5	-25.5	-28.2	-31.3	-34.8	-38.8
Abroad	-5.0	-13.4	-14.2	-17.4	-10.1	-18.1	-15.1	-15.6	-16.8	-18.2	-19.8	-21.5
In reporting economy	8.9	3.5	8.3	13.2	4.8	-4.8	-9.4	-9.9	-11.4	-13.1	-15.1	-17.3
Portfolio investment	-16.5	-2.8	-2.2	-5.9	-8.6	-11.6	-7.6	-9.1	-10.2	-10.0	-11.0	-12.0
Financial derivatives	0.9	0.3	0.1	0.1	0.8	-0.2	0.4	0.2	0.1	-0.2	-0.6	0.0
Other investment	-5.1	-7.8	-2.5	-3.3	-2.5	31.0	29.2	19.1	19.1	18.2	22.7	28.1
Errors and omissions	-5.1	-10.4	-7.3	-7.3	-9.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0
Changes in official reserves (increase -)	**-5.9**	**-12.8**	**-26.0**	**-7.3**	**-13.6**	**-18.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
	(In percent of GDP)											
Current account balance	**6.9**	**10.5**	**9.6**	**5.6**	**7.0**	**3.2**	**0.5**	**2.6**	**3.2**	**3.7**	**3.5**	**3.2**
Trade balance	6.5	8.7	7.1	4.4	4.9	7.9	6.5	6.2	5.6	5.2	5.0	4.5
Exports, f.o.b.	53.2	51.6	51.2	49.6	44.6	45.2	46.4	45.3	45.4	46.1	46.7	47.0
Imports, f.o.b.	46.7	43.0	44.1	45.2	39.7	37.2	40.0	39.1	39.9	40.9	41.7	42.5
Services balance	3.9	4.9	5.3	4.4	4.5	-3.0	-4.7	-1.9	-0.7	0.4	0.5	0.7
Of which: tourism receipts	10.3	10.8	11.5	11.1	11.0	2.5	1.1	4.5	6.4	7.6	7.9	8.1
Primary Income balance	-5.1	-4.7	-4.5	-4.8	-3.7	-2.8	-3.2	-3.3	-3.3	-3.5	-3.5	-3.4
Secondary Income balance	1.7	1.6	1.7	1.6	1.3	1.2	1.9	1.6	1.6	1.5	1.5	1.5
Capital and financial account balance	**-4.2**	**-4.9**	**-2.3**	**-2.7**	**-2.9**	**-0.7**	**-0.5**	**-2.6**	**-3.2**	**-3.7**	**-3.5**	**-3.2**
Foreign direct investment	1.0	-2.4	-1.3	-0.8	-1.0	-4.5	-4.5	-4.4	-4.6	-4.9	-5.2	-5.5
Abroad	-1.2	-3.2	-3.1	-3.4	-1.9	-3.6	-2.8	-2.7	-2.8	-2.9	-3.0	-3.0
In reporting economy	2.2	0.8	1.8	2.6	0.9	-0.9	-1.7	-1.7	-1.9	-2.1	-2.3	-2.5
Portfolio investment	-4.1	-0.7	-0.5	-1.2	-1.6	-2.3	-1.4	-1.6	-1.7	-1.6	-1.6	-1.7
Financial derivatives	0.2	0.1	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	-0.1	0.0
Other investment	-1.3	-1.9	-0.6	-0.7	-0.5	6.2	5.4	3.3	3.1	2.9	3.4	4.0
Errors and omissions	-1.3	-2.5	-1.6	-1.4	-1.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance	-1.5	-3.1	-5.7	-1.4	-2.5	-3.7	0.0	0.0	0.0	0.0	0.0	0.0
Changes in official reserves (increase -)	-1.5	-3.1	-5.7	-1.4	-2.5	-3.7	0.0	0.0	0.0	0.0	0.0	0.0
Memorandum items												
Gross official reserves (In billions of U.S. dollars)	157	172	203	206	224	258	258	258	258	258	258	258
Gross official reserves (incl. net forward position)												
(In billions of U.S. dollars)	168	198	239	239	259	287	287	287	287	287	287	287
(Percent of GDP)	41.9	47.8	52.4	47.3	47.5	57.3	53.3	49.7	47.3	45.1	42.9	40.8
(Months of following year's imports)	11.4	11.8	12.6	13.3	16.6	16.0	15.2	14.2	13.2	11.5	10.7	10.0
(In percent of short-term debt)	280.2	273.8	326.8	288.4	325.3	313.6	334.4	311.6	292.3	273.9	312.8	290.3
Forward/swap position of BOT	-11.7	-25.8	-36.7	-33.7	-34.3	-29.3	-29.3	-29.3	-29.3	-29.3	-29.3	-29.3
Export growth (y/y percent change)	-5.9	0.1	9.5	7.5	-3.3	-6.6	10.4	4.6	5.5	6.4	6.4	5.9
Export volume growth	-1.5	0.5	5.3	3.9	-3.7	-5.9	8.8	4.7	4.6	4.3	4.4	4.3
Export unit value growth	-4.1	-0.4	3.6	3.4	0.3	-0.8	1.5	0.0	0.9	2.0	1.9	1.6
Import growth (y/y percent change)	-10.6	-5.1	13.2	13.7	-5.6	-13.5	15.2	5.0	7.2	7.5	7.1	7.3
Import volume growth	0.3	-2.5	7.2	7.7	-5.7	-11.8	4.4	5.7	6.4	6.0	5.3	5.3
Import unit value growth	-10.8	-2.7	5.5	5.6	0.2	-2.0	10.4	-0.6	0.7	1.4	1.7	1.9
External debt (percent of GDP)	32.7	32.1	34.2	32.2	31.6	37.9	36.2	36.0	36.7	37.6	38.5	39.5
(Billions of U.S. dollars)	131	133	156	163	172	190	195	208	223	240	258	278
Debt service ratio (percent) 2/	6.3	5.8	5.7	6.3	6.9	9.0	8.0	7.3	6.9	6.4	6.2	6.2
GDP (billions of U.S. dollars)	401	413	457	506	544	502	539	578	608	637	670	704

Sources: Thai authorities; CEIC Data Co. Ltd.; and IMF staff estimates and projections.

1/ Includes financing facilities arranged by AsDB and IBRD and disbursements under the Miyazawa Plan.
2/ Percent of exports of goods and services.

Table 4. Thailand: Medium-Term Fiscal Scenario, FY2016–FY2026 1/

(In percent of fiscal year GDP, unless otherwise stated)

						Projections					
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
General Government											
Revenue	21.9	21.1	21.4	21.0	20.6	21.1	21.6	21.8	21.9	21.9	21.9
Tax revenue	17.2	16.5	16.7	16.2	15.6	15.6	16.1	16.4	16.5	16.5	16.5
Taxes on income	6.2	5.9	6.0	5.9	5.7	5.7	5.7	5.7	5.7	5.7	5.7
Taxes on goods and services	9.8	9.7	9.7	9.4	9.1	9.1	9.1	9.1	9.1	9.1	9.1
Taxes on international trade	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Other	0.4	0.4	0.4	0.4	0.3	0.3	0.8	1.1	1.2	1.2	1.2
Social contributions	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Other revenue	3.6	3.5	3.7	3.8	4.0	4.5	4.5	4.5	4.5	4.5	4.5
Total expenditure	21.3	21.5	21.4	21.8	25.3	25.9	23.1	23.3	23.2	23.1	23.1
Expense	19.1	19.0	18.9	19.4	22.1	23.3	20.1	20.3	20.2	20.3	20.2
Compensation of employees	6.6	6.3	6.1	5.9	6.0	6.0	5.9	5.9	5.9	5.9	5.8
Purchase/use of goods and services	6.2	6.0	6.3	6.2	6.1	6.2	6.2	6.2	6.1	6.1	6.1
Interest	0.9	0.9	1.0	1.0	1.0	1.0	1.2	1.3	1.3	1.3	1.3
Social benefits	2.5	2.6	2.6	2.7	3.1	3.4	3.2	3.3	3.4	3.4	3.5
Other	2.9	3.1	2.9	3.6	5.9	6.6	3.6	3.6	3.5	3.5	3.5
Net acquisition of nonfinancial assets	2.3	2.5	2.5	2.4	3.2	2.7	3.0	3.0	3.0	2.9	2.9
o.w. fixed assets	3.9	2.6	2.5	2.4	3.2	2.7	3.0	3.0	3.0	2.9	2.9
o.w. nonproduced assets	-1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall fiscal balance	0.6	-0.4	0.1	-0.8	-4.7	-4.9	-1.5	-1.4	-1.2	-1.2	-1.1
SOEs											
Overall fiscal balance 2/	0.8	0.7	0.5	0.6	-0.1	-0.3	0.3	0.3	0.4	0.6	0.6
Public Sector											
Overall fiscal balance 3/	1.3	0.3	0.6	-0.3	-4.8	-5.2	-1.2	-1.1	-0.9	-0.6	-0.5
Primary balance	2.5	1.5	1.9	1.0	-3.7	-4.0	0.2	0.4	0.6	0.9	0.9
Cyclically adjusted primary balance	2.8	1.7	1.8	1.2	-2.0	-2.6	0.8	0.8	0.8	0.9	0.9
Structural primary balance	1.2	1.7	1.8	1.2	-2.0	-2.6	0.8	0.8	0.8	0.9	0.9
Debt	41.7	41.8	42.0	41.0	49.6	55.9	54.7	54.2	53.8	52.7	51.4
Memorandum items:											
Public sector investment 4/	6.4	5.6	5.2	5.1	6.7	6.4	5.6	5.5	5.5	5.2	5.2
General government	4.7	3.8	3.5	3.5	4.3	3.8	3.6	3.6	3.6	3.5	3.5
Public enterprises	1.7	1.8	1.7	1.7	2.4	2.6	1.9	1.9	1.9	1.7	1.7

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

1/ Fiscal year runs from October to September.

2/ Estimated from the evolution of SOEs debt.

3/ Includes General Government and SOEs.

4/ Official GFS data are not available for the Public Sector. Historical data are estimated based on GFS General Government official data, and information from SEPO and national accounts.

Appendix I. 2020 External Sector Assessment[1]

Overall Assessment: *The external position in 2020 was stronger than the level implied by medium-term fundamentals and desirable policies.* The current account surplus narrowed relative to 2019 due to the COVID-19 shock reflecting a dramatic fall in the tourism-driven services balance partially offset by a strengthening trade balance, as weak domestic demand drove a sharper contraction in imports than exports.

Potential policy responses: Staff recommends an accelerated, mutually reinforcing macro policy stimulus, led by a fiscal expansion, given available fiscal space, to revitalize domestic demand. This should be deployed toward targeted social transfers, to mitigate the effects of the pandemic on the most vulnerable, as well as infrastructure investment, to support the recovery and reorientation of affected sectors. The exchange rate should move flexibly as the key shock absorber, with intervention limited to disorderly market conditions. Efforts to reform social safety nets should continue, and steps to address widespread informality should reduce precautionary saving and support consumption.

Foreign Asset and Liability Position and Trajectory	**Background.** Thailand's net international investment position (NIIP) strengthened in 2020 to 11 percent of GDP (from 0.3 percent in 2019). Gross assets rose to around 120 percent of GDP (driven by the increase in reserve assets to 51 percent of GDP) while gross liabilities increased slightly to 109 percent of GDP comprising direct (about half) and portfolio (a third) investment. Falling inward investment kept net FDI low; outward direct and portfolio investment recovered strongly by year end offsetting midyear outflows. **Assessment.** The NIIP is projected to remain in a small creditor position over the medium-term given current account surpluses. External debt rose to a still contained 38 percent of GDP, of which short-term debt (on a remaining maturity basis) amounts to 15 percent of GDP; risks to external debt sustainability and liquidity are limited.					
2020 (% GDP)	NIIP: 11	Gross Assets: 120	Res. Assets: 51	Gross Liab.: 109	Debt Liab.: 38	
Current Account	**Background.** Thailand's current account (CA) surplus declined from 7.0 in 2019 to 3.2 percent of GDP in 2020, reflecting the impact of the pandemic. Containment measures weighed on domestic demand, which led to a larger contraction in imports than exports, which softened due to weak global demand and supply chain disruptions notwithstanding a surge in net gold exports (gold is widely used as a store of wealth in Thailand and many households without access to social safety nets had to rely on gold sales in 2020 to meet extraordinary liquidity needs). This led to a strengthening of the trade balance. However, the services account collapsed, as international tourist arrivals fell to zero between April and September 2020. The current account in 2021 is expected to narrow to 0.5 percent of GDP, as the recovery in domestic and external demand narrows the trade balance, and tourist receipts are still slow to recover. **Assessment.** The EBA CA model estimates a cyclically-adjusted CA of 1.0 percent of GDP and a CA norm of 1.1 percent of GDP for 2020. The CA gap of -0.1 percent of GDP consists of an identified policy gap of 1.5 percent of GDP (mainly due to fiscal policy and FXI), and an unexplained residual of -1.6 percent of GDP, which partly reflects the unique nature of the COVID-19 shock as well as structural factors not fully captured by the EBA model. In this regard, adjustors to account for the large shocks to the tourism and oil sectors of 3.7 and -0.6 percent of GDP respectively, are applied as they are not accounted for by the standard EBA cyclical adjustment. Further adjustments regarding the global shift in private spending composition from services toward consumer goods (-0.3 percent of GDP), net exports of medical supplies triggered by the health emergency (-0.2 percent of GDP), and the aforementioned surge in gold exports (-0.3 percent of GDP) are also applied. Overall, staff assesses the CA gap to be in the 0.8-3.8 percent of GDP range with a midpoint of 2.3 percent of GDP. This gap is expected to narrow over the medium term, as policy stimulus is deployed, domestic demand recovers, and the social safety net is enhanced.					
2020 (% GDP)	CA: 3.2	Cycl. Adj. CA: 1.0	EBA Norm: 1.1	EBA Gap: −0.1	COVID-19 Adj.: 2.4	Other Adj.: 0.0	Staff Gap: 2.3
Real Exchange Rate	**Background.** The baht has been on a gradual real appreciation trend since the mid-2000s, despite occasional bouts of volatility. In 2020, the REER had depreciated 6.9 percent by April 2020, relative to end-December 2019, as emerging markets faced increased capital outflows due to the outbreak of the pandemic. The REER has broadly resumed its appreciation since, as the virus was controlled in Thailand through the year, and buttressed by positive sentiment on the vaccine, ending the year about 2.6 percent lower relative to its 2019 average. **Assessment.** Using an elasticity of 0.56 and based on the staff CA gap, staff assesses the REER to be undervalued in the 1.4-6.4 range, with a midpoint of 3.9 percent. The EBA index REER gap in 2020 is estimated at 10.6 percent; the EBA level REER gap is estimated at −5.3 percent.						
Capital and Financial Accounts: Flows and Policy Measures	**Background.** In 2020, the capital and financial account balance strengthened to -0.7 percent of GDP from -2.9 percent in 2019, driven by other investment flows. Nonresident holdings of Thai bonds and equities declined in March/April, but had recovered by the end of the year, reflecting Thailand's strong external position relative to other EMs. Through the year, the authorities accelerated plans to liberalize FX outflows, including easing restrictions on resident holdings of foreign currency securities and deposits. **Assessment.** Since 2013, Thailand has experienced episodes of volatility reflecting external financial and political conditions. Nevertheless, Thailand has been able to weather well such episodes, given strong external buffers and fundamentals. Staff encourages the prudent liberalization of the financial account and recommends phasing out the 2019 reduction in the limits on nonresident baht accounts. Instead a comprehensive package of macroeconomic, financial, and structural policies should be pursued, complemented by continued efforts to liberalize capital outflows.						
FX Intervention and Reserves Level	**Background.** The exchange rate regime is classified as (de jure and de facto) floating. International reserves (including net forward position) increased to 57.3 percent of GDP in 2020, which is over three times short-term debt and 12 months of imports, and over 200 percent of the IMF's standard reserve adequacy metric. In response to the COVID-19 shock, the exchange rate has been allowed to adjust, with some FX sales in outflow episodes. **Assessment.** Gross international reserves (including net forward position) increased by over US$28.7 billion in 2020. While official intervention data is not published, estimates suggest two-sided intervention for the year. Reserves are higher than the range of IMF's adequacy metrics and there continues to be no need to build up reserves for precautionary purposes. The exchange rate should move flexibly to act as a shock absorber, with intervention limited to avoiding disorderly market conditions.						

[1] Prepared by Sanaa Nadeem.

Appendix II. Risk Assessment Matrix

Nature/Source of Threat	Likelihood	Impact	Policies to Minimize Impact
Conjunctural Risks			
Unexpected shifts in the COVID-19 pandemic • Asynchronous progress • Prolonged pandemic • Faster containment	*M*	***H:*** Longer-than-expected deployment of vaccine could undermine the recovery and further exacerbate social disparities. If the disease proves harder to eradicate (e.g., due to new virus strains, short effectiveness of vaccines, or widespread unwillingness to take them), costly containment efforts will be required prompting persistent behavioral changes, displacing many workers, rendering a notable part of the physical capital obsolete, and many activities unviable with scarring effect on economic potential. The pandemic imposes considerable risks to vulnerable groups and SMEs, particularly those in contact-intensive sectors. Labor-intensive firms in contact-intensive sectors are more likely to shutter, lay off, or reduce hours or wages for already low-income workers further exacerbating negative social outcomes. Faster-than-expected containment of the pandemic due to the rapid production and distribution of vaccines will boost confidence and accelerate economic recovery.	Continue more targeted support to vulnerable groups and viable firms. Build-in incentives in policy support measures to facilitate reallocation of resources and encourage modification of firms' business models. Frontloading and scaling up public investments, combined with acceleration in structural reforms, could mitigate the scarring impact of the pandemic. Optimal calibration of the timing of the authorities plans to taper liquidity/policy support, based on both supply and demand indicators, would be important to supporting the recovery. Additional measures to ramp up the effective distribution of vaccines to help attain "herd immunity" would be critical to securing the recovery.
Sharp rise in global risk premia, which exposes financial and fiscal vulnerabilities	*M*	***M***: A reassessment of market fundamentals (e.g., in response to adverse COVID-19 developments) could trigger a widespread risk-off event. As a result, risk asset prices could fall sharply and volatility could spike, leading to significant losses in major non-bank financial institutions. Higher risk premia could generate financing difficulties for leveraged firms (including those operating in unviable activities) and households, and a wave of bankruptcies could erode banks' capital buffers.	Allow exchange rate flexibility to be the first line of defense, with judicious intervention to address disorderly market conditions. Continue targeted support to viable firms, while facilitating the exit of unviable ones to allow efficient reallocation of resources. At the same time strengthen the macroprudential framework and policies through addressing current leakages in the macroprudential toolkit by covering cooperatives and nonbanks and broadening the set of macroprudential tools used.
Widespread social discontent and political instability	*H*	***H***: Social tensions, which have taken place in Thailand over the last few months, could intensify as the pandemic gets more protracted and inadequate policy response cause socio-economic hardship (unemployment, poverty, and shortages and higher prices of essentials—often exacerbating pre-existing inequities and political polarization), or due to unequal access to vaccines. Growing political polarization and instability weaken policymaking and confidence dampening private investment and FDI inflows weighing on broader economic recovery. Public investment execution would also slow down. In extreme bound scenarios, capital outflows would put pressure on credit and asset markets.	Allow automatic stabilizers to work. Provide adequate liquidity to banks to minimize disruptions in the financial system. Let the exchange rate be the first line of defense in case of capital outflows but use FX intervention to address disorderly market conditions.
Intensified geopolitical tensions and security risks	*H*	**H:** (Geo)political tensions in selected countries/regions (e.g., Middle East) could cause economic/political disruption, disorderly migration, higher volatility in commodity prices (if supply is disrupted), and lower confidence.	Structural reforms and infrastructure development would raise returns to private investment and strengthen domestic-demand-led growth. Allow exchange rate flexibility to be the first line of defense.
Oversupply and volatility in the oil market	*M*	**M:** Higher supply (due to, e.g., OPEC+ disagreements) and lower demand (including due to a slower global recovery from COVID) could lead to renewed weakness in energy prices. Uncertainty about production cuts, prospects for the shale gas industry, and the pace of demand recovery could lead to bouts of volatility. As shocks materialize, they may cause large and persistent price swings. Being a net oil importer, Thailand stands to gain with lower oil prices.	Carefully monitor possible spillovers from oil prices to core inflation and adjust monetary policy stance to limit spillovers. Structural reforms and infrastructure development would raise returns to private investment and strengthen domestic-demand-led growth.
Structural Risks			
Accelerating de-globalization	*M*	***H:*** Despite renewed efforts to reach multilateral solutions to existing tensions, geopolitical competition could lead to further fragmentation. Reshoring and less trade reduce potential growth.	Structural reforms and infrastructure development would raise returns to private investment and strengthen domestic-demand-led growth. Continue strong engagement in multilateral forums and deepen regional trade integration and seek new opportunities to enhance position in global value chains.
Cyber-attacks	*M*	***M:*** Cyber-attacks on critical infrastructure, institutions, and financial systems could trigger systemic financial instability or widespread disruptions in socio-economic activities and remote work arrangements. Bank of Thailand has been a leading voice in the region on work on both fintech and digital economy, which also saw the setting up of a new Ministry of digital economy.	BOT should sustain current efforts to strengthen its capacity to deal with cyber-attacks and fintech-related challenges.
Higher frequency and severity of natural disasters related to climate change	*M/L*	**M**: The realization of this risk could cause severe economic damage to smaller economies susceptible to disruptions and accelerate emigration from these economies (medium probability). A sequence of severe events in large economies reduces global GDP and prompts a recalculation of risk and growth prospects. Disasters hitting key infrastructure or disrupting trade raise commodity price levels and volatility (low probability). Thailand's extreme weather—droughts and flooding—highlights the country's vulnerability to climate change.	Improve social safety net programs to better target most vulnerable populations. Use efficient carbon pricing and scale up investments in climate resilient infrastructure and in research and development. Incorporate climate risks in prudential policies and in stress and financial sector assessments. Encourage a shift toward a more sustainable and higher value-added tourism mode, which may help reduce the health risks and foster a greener recovery.

"L"=Low; "M"=Medium; "H"=High. 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 of risks listed 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.

Appendix III. Analysis of Broader Economic Scarring for Emerging Markets with Policy Options[1]

Looking beyond the short-term impact of the COVID-19 crisis is an important policy question given the massive economic recession it brought about and potential structural changes that are yet to come. This question is particularly important for emerging markets (EMs) that faced the crisis with already slowing potential growth, heightened vulnerabilities, and limited policy space. This annex attempts to quantify the potential scarring effect of the COVID-19 pandemic for EMs, analyze possible nonlinearities that could amplify/mitigate the scarring impact of the pandemic in EMs, and explore the role of policy responses to mitigate the scarring effect.

Introduction

1. COVID-19 induced recession in many EMs, including Thailand, is likely to leave deep scars on their economic potential that will take many years to heal. In 2020, EMs experienced one of their worst recessions since 1980s (Figure 1). The magnitude and the nature of the shock is expected to generate substantial structural shifts displacing many workers and rendering a notable part of the physical capital obsolete. The implications will be more severe for informal and migrant workers, particularly women and youths.

2. EMs faced the COVID-19 pandemic with relatively weak initial conditions and structural weaknesses. The pandemic hit many EMs at the time of slowing growth. Average EM growth during 2015–19 was about half of the average growth observed during 2005–09 (Figure 1). Thailand was not an exception: GDP growth in 2019 was the lowest in the last five years. EMs had more vulnerable public and corporate sectors in 2019 than what they had pre-GFC. In addition, the pace of public and corporate debt accumulation five years before the pandemic was higher in EMs compared with advanced economies (AEs). Moreover, the policy response to the pandemic significantly narrowed conventional monetary policy space. Average policy rate for EMs dropped below 2 percent by the end of 2020, while in several EMs, including Thailand, the policy rate is under one percent, which limits the room for further monetary stimulus using conventional tools. EMs' structural characteristics are less conducive for resource reallocation compared with AEs, which could potentially increase the economic scarring in EMs.

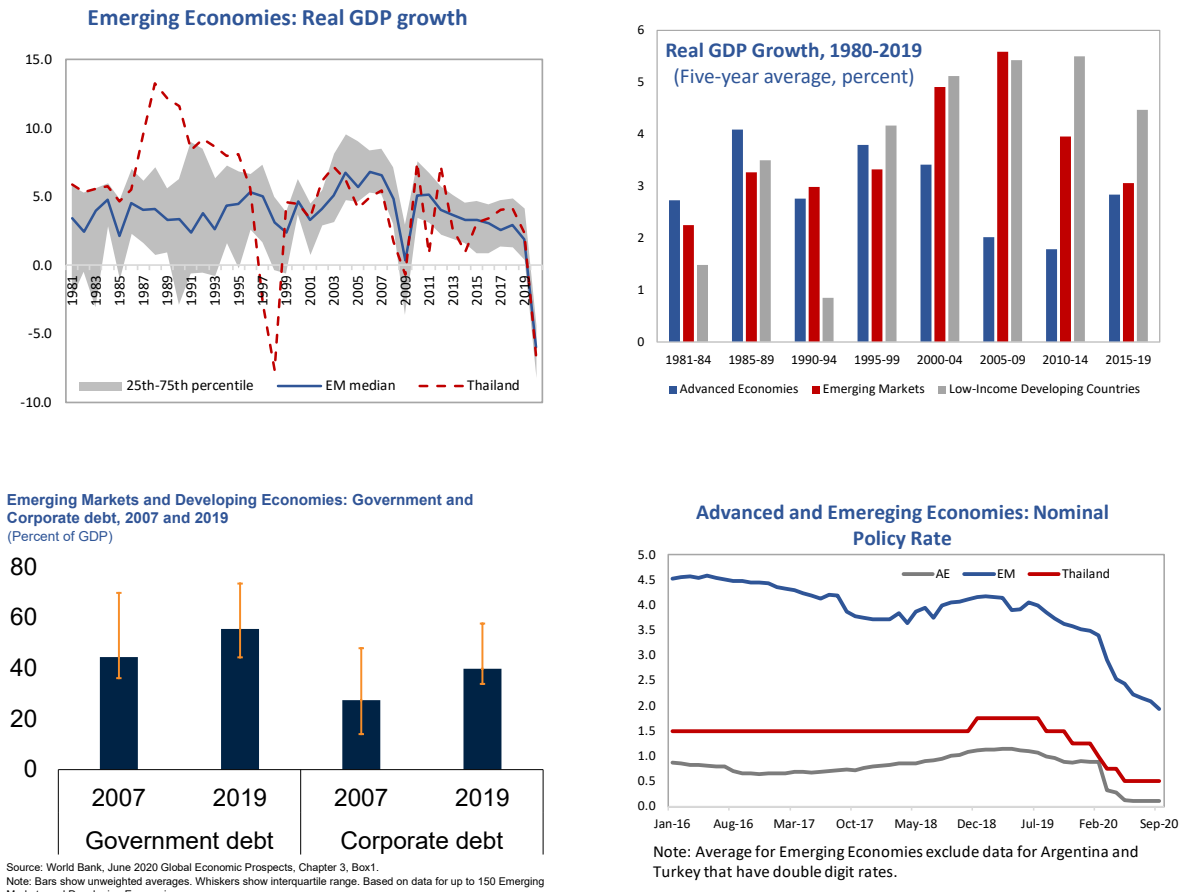
3. Identifying potential channels of long-term scaring from pandemics for EMs and timely deploying policy measures to mitigate the negative fallout of the pandemic will be critical. While several studies have looked at the long-term impact of the pandemic in AEs, studies that analyze this question from the EM perspective are limited. Therefore, this analysis tries to contribute to the ongoing debate on the negative long-term implications of pandemics and available policy tools to counter it from an EM perspective.

4. Preliminary findings indicate that policies could mitigate the pandemic-induced economic scarring in EMs, which is likely to be larger compared to AEs. Five years after recessions potential output in EMs is estimated to be lower by more than 4 percent, which is about

[1] Prepared by Ara Stepanyan.

2½ times larger than the estimated potential loss for AEs. Moreover, the loss in potential output for EMs is much more severe when recessions coincide with pandemics. However, structural reforms and public investment upscaling have a potential to limit economic scarring.

Figure 1. Thailand: Emerging Economies—Initial Conditions and the Impact of COVID-19 Crisis



Source: World Bank, June 2020 Global Economic Prospects, Chapter 3, Box1.
Note: Bars show unweighted averages. Whiskers show interquartile range. Based on data for up to 150 Emerging Markets and Developing Economies.

Note: Average for Emerging Economies exclude data for Argentina and Turkey that have double digit rates.

Methodology and Data

5. Pandemics can affect medium-term growth through factors of production and the efficiency of their use. Protracted unemployment could result in loss of human capital and dislocate labor giving rise to a skill mismatch, which, combined with declined job-search activity, would reduce the efficiency of job matching. Uncertainty, weak confidence, and low levels of capacity utilization associated with pandemics could discourage investment, including those that embody productivity-enhancing technologies, and lead to a legacy of obsolete capacity. Pandemics could also cause reconfiguration and shortening of global value chains (GVC) limiting diffusion of new technologies and knowledge, particularly for EMs. Prolonged pandemics can disrupt schooling, undermine learning conditions, and erode human capital.

6. The implications of past pandemics/recessions on long-term growth can help us understand the likely impact of the COVID-19 on economies' potential. The local projection method (Jorda, 2005) is used to estimate the scarring impact of past pandemics/recessions. The local projection method (LPM) provides a reduced form estimate of the response of a variable of interest

(potential growth, labor productivity, investment rate, etc.) to adverse events over various horizons by comparing the average path of a variable of interest after an event with its predicted counterfactual. It also allows to identify key transmission channels and country specific characteristics that could amplify or mitigate the scarring effect. As a robustness check we also estimated economic scarring using the autoregressive Distributed Lag model. The LPM could be represented by the following equation:

$$y_{t+h.j} - y_{t-1,j} = a_{(h),j} + \tau_{(h),j} + \beta_{(h)} E_{t,j} + \sum_{s=1}^{p} \gamma_{l(h),s} E_{t-s,j} + \sum_{s=1}^{h-1} \gamma_{f(h),s} E_{t+h-s,j} + \sum_{s=1}^{p} \delta_{(h),s} \Delta y_{t-s,j} + u_{(h)t,j}$$

where h is the horizon, a *and* τ are country and time fixed effects, and u is an error term. The coefficient β captures the dynamic multiplier effect (impulse response) of the dependent variable with respect to the event dummy variable *E*. The number of lags for each variable is denoted by *p*. The specification controls for past changes of dependent variable Δy, lagged event dates, and future values of the event dummy between time *t* and *t+h-1* to correct for possible forward bias. These controls would help alleviate a possible endogeneity or reverse causality and contemporaneous interactions between dependent and independent variables. Additional controls for country-specific interactions are included to test whether country specific characteristics, prior vulnerabilities, or policy response alter the magnitude of the scarring effect.

7. This analysis covers countries at different level of development for the period 1980-2019. The sample includes 35 AEs, 33 EMs, and 8 developing economies. Data for past pandemics are from Emergency Disasters Database. Recessions are defined as years with negative GDP growth (Huidrom and others, 2016), while Financial Crisis is defined as in Laeven and Valencia (2018). Data for structural indicators are mostly from the Economic Freedom of the World, WDI, and OECD. Fiscal indicators are mostly from FAD's Global Debt and Fiscal Monitor datasets. The multivariate filtering approach developed by Blagrave and others (2015) is used to estimate potential output and NAIRU.

Results

8. EMs experience a considerable long-term loss in potential output after recessions, which is amplified when pandemics accompany recessions. Five years after recessions potential output is more than 3.5 percent lower for the entire sample compared with a no recession outcome (Figure 2). This is within a similar range of estimates available in the literature.[2] The estimates for EMs suggest more than 4 percent loss five years after recessions, which exceeds a similar estimate for AEs by 2½ times. Potential output loss is much more severe when pandemics coincide with recessions. In this case, the loss of potential output after five years is almost 10 percent for the entire sample. It is even larger for EMs reaching to about 14 percent. The estimated loss of potential output for AEs also increases in the event of a combined shock of pandemic and recession, though it becomes statistically insignificant probably reflecting only a few incidents of recessions coinciding with pandemics in AEs. These estimates might sound too high, particularly the one that looks at the simultaneous occurrence of recessions and pandemics, but it is not that far from estimates available

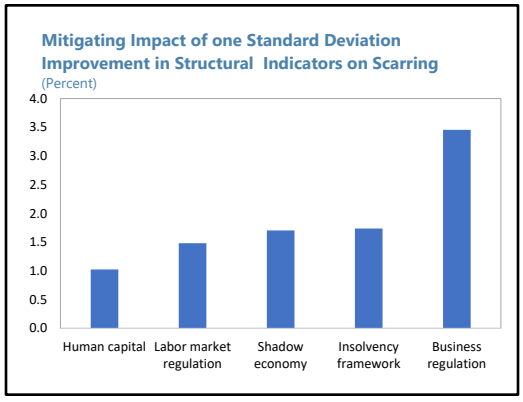
[2] See for example World Bank, *Global Economic Prospects,* June 2020.

in the literature. The paper by Bannister and others (2020) suggests 12 percent medium-term output loss after large recessions.

9. Key transmission channels of the scarring effect for EMs operate through investment and labor productivity, while the investment channel is more prominent in AEs. The analysis indicates that five years after recessions, labor productivity is 3.5 percent lower for the entire sample with EMs experiencing a 5.3 percent loss, while in AEs, though negative, the estimate is statistically insignificant (Figure 3). In the event of recessions that are accompanied with pandemics, the estimated loss in labor productivity for the entire sample balloons to 13 percent, largely driven by a significant loss observed for EMs. Impulse response estimates for the investment rate suggest about a 2 percent loss five years after recessions. For EMs, the loss in the investment rate is about 2.5 percent, while for AEs it is around 1.4 percent. However, in the case of recessions accompanied with pandemics, the estimated impact is not statistically significant neither for the entire sample nor for EMs. It is only statistically significant for AEs. It is worth noting that, the analysis in this annex did not identify a statistically significant increase in structural unemployment following recessions, including those that have been accompanied with pandemics.

10. The magnitude of the scarring effect of recessions varies with countries' initial conditions. Our analysis suggests that countries with higher public debt accumulation five years prior recessions tend to have larger economic scarring. This result is driven by the experience of EMs, and probably reflects better fiscal frameworks in AEs compared with the EMs (Figure 4). Household debt also affects the size of scarring as countries with larger household debt accumulation in the runup to recessions experienced larger long-term loses in potential output. The role of household debt is particularly relevant for AEs as the EM specific estimate is statistically insignificant. This might reflect the low level of financial deepening in EMs compared with AEs. Moreover, household debt accumulation prior recessions results in a larger long-term loss in investment rate and labor productivity both in EMs and AEs. Although the variation in corporate debt does not show a significant correlation with the magnitude of economic scarring for potential output, countries that accumulated large corporate debt in the runup to recessions tend to experience a larger long-term loss in investment rate, particularly EMs.

11. Structural reforms could help reduce economic scarring of recessions substantially. Countries with more flexible labor and business regulations tend to have smaller potential output loss (Figure 5). For example, a one standard deviation improvement in business regulations could reduce potential output loss five years after a recession by about 3.5 percentage points, while a one standard deviation improvement in labor market regulations could mitigate 1.5 percentage points of potential output loss. Better insolvency framework is also associated with smaller potential output loss after recessions. A one standard deviation improvement in the insolvency framework could reduce potential output loss by about 1.7 percentage points. The estimates suggest that countries with high levels of human capital tend to have smaller scarring of potential output with one standard deviation improvement in human capital



could reduce economic scarring by one percentage points (Figure 5). Moreover, countries with more educated labor force benefit from smaller losses in the investment rate and labor productivity five years after recessions. However, these results are largely driven by the AEs. The size of the shadow economy also matters, leading to a deeper economic scarring in countries with larger shadow economy. These structural factors are also relevant for mitigating the long-term negative implications of recessions on labor productivity.

12. Fiscal policy also has a considerable potential to counter the negative long-term implications of recessions for potential output. Countries that have increased their public investments relative to the size of their economy in the year of recession tend to have smaller scarring impact on potential output (Figure 6). One percent of GDP increase in public investments is associated with about 3.5 percentage points lower potential output loss five years after recessions. Scaling up public investment could crowd in technology embedded private investment, thus mitigate economic scarring. More spending on research and development (R&D) also has the potential to reduce output loss after recessions. A one standard deviation increase in R&D spending to GDP ratio could reduce potential output loss by about 0.8 percentage points, though this is mostly relevant for EMs. Although the analysis does not show any statistically significant association of spending on active labor market policies with the magnitude of potential output loss after recessions, it indicates that countries with higher spending on active labor market policies (ALMPs) tend to have smaller long-term loss in labor productivity. Therefore, enhancing ALMPs could facilitate reallocation of resources by helping dislocated labor to return to employment faster.

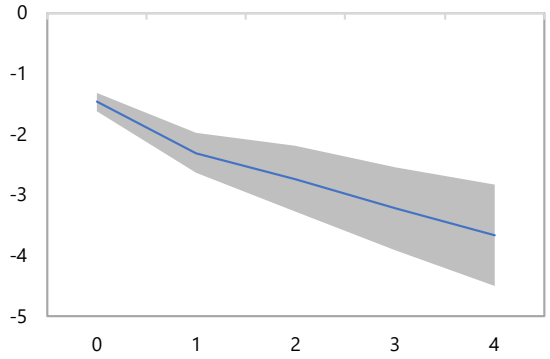
Conclusions and Policy Options

13. COVID-19 crisis is expected to inflict sizable long-term scars on the economic potential of EMs. As analysis in this appendix indicates EMs stand to suffer a significant economic loss from COVID-19 pandemic, which is likely to exceed the magnitude of the expected long-term loss in AEs by several fold. Moreover, the impact could be even larger if countries face the pandemic with weak initial conditions and heightening vulnerabilities.

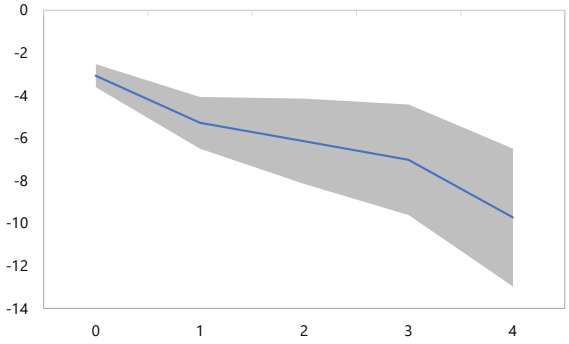
14. However, skillfully designed and timely implemented policies could offer some relief for EMs. In the near-term, EMs with available policy space could upscale public investments and pursue active labor market policies. The latter, in addition to providing demand boost, could facilitate reallocation of labor limiting the possible increase in skills mismatch. In addition, policymakers should focus on strengthening their insolvency frameworks to address debt overhang through measures that avoid formal bankruptcy or facilitate recovery after bankruptcy. Structural reforms, centered on reducing the regulatory burden in the labor and product markets, should be one of the key proprieties for medium-term policies. This will also help reduce the size of informal sector. Finally, judiciously calibrated R&D incentives could help boost countries' innovative capacity in the medium-term.

Figure 2. Thailand: Impact of Recessions and Pandemics on Potential Output in Advanced and Emerging Economies

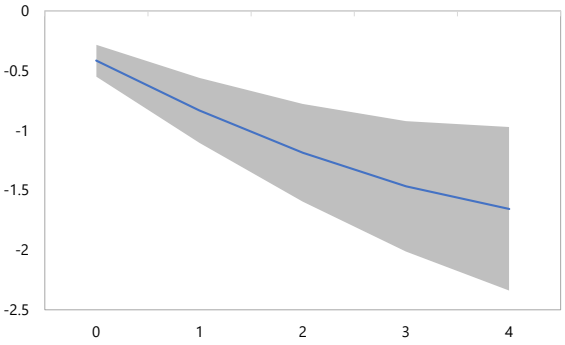
Cumulative Response of Potential Output to Recessions (Whole Sample)



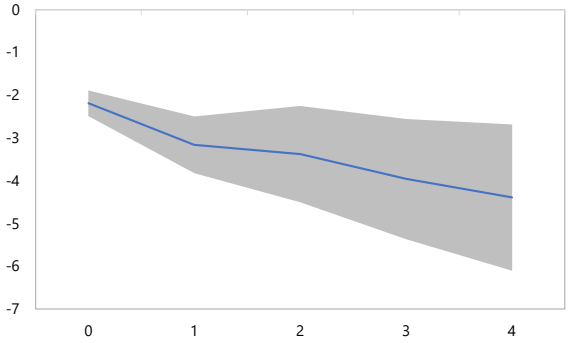
Cumulative Response of Potential Output to Recessions with Pandemics (whole sample)



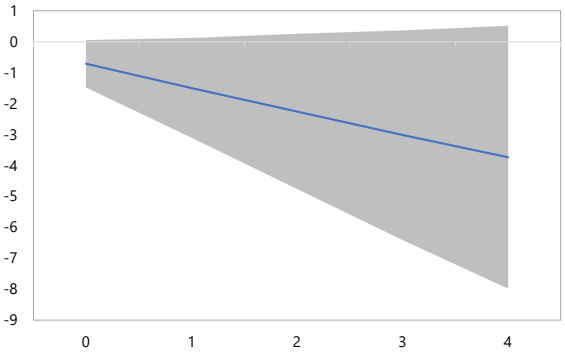
Cumulative Response of Potential Output to Recessions (AEs)



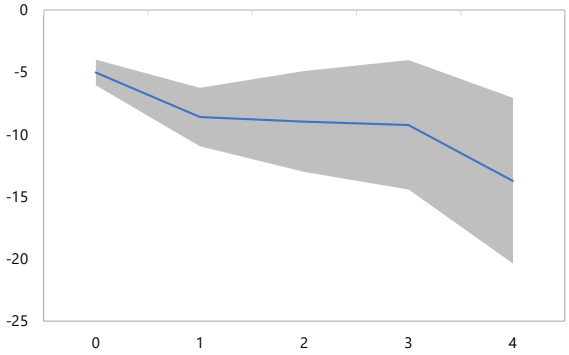
Cumulative Response of Potential Output to Recessions (EMs)



Cumulative Response of Potential Output to Recessions with Pandemics (AEs)



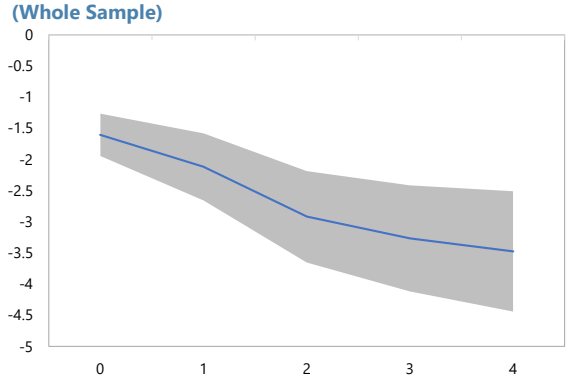
Cumulative Response of Potential Output to Recessions with Pandemics (EMs)



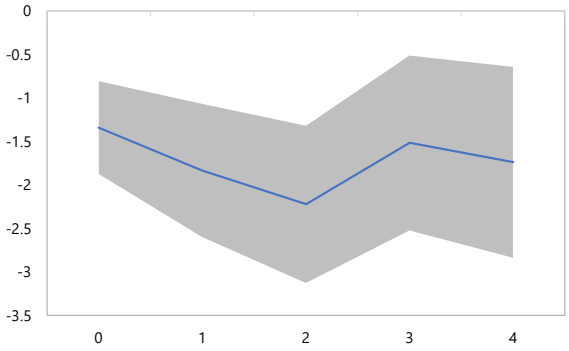
Sources: Emergency Disasters Database, WDI, WEO, and IMF staff estimates.

Figure 3. Thailand: Main Channels of Transmission of Economic Scarring from Recessions

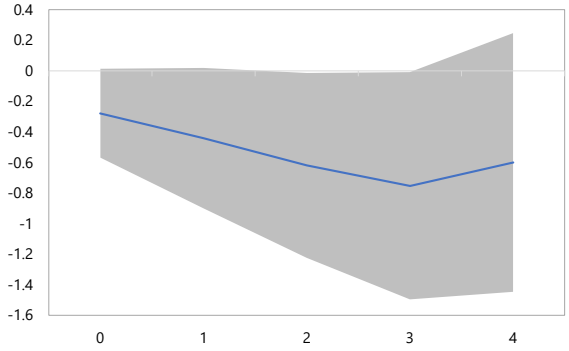
Cumulative Response of Labor Productivity to Recessions (Whole Sample)



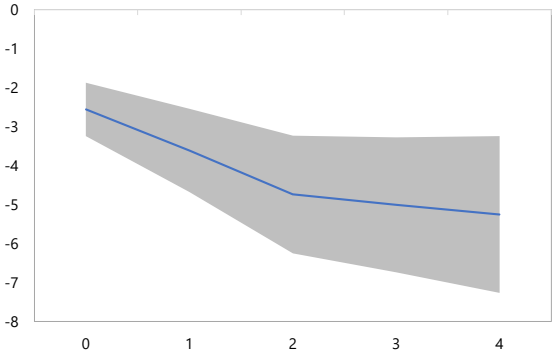
Cumulative Response of Investment Rate to Recessions (Whole Sample)



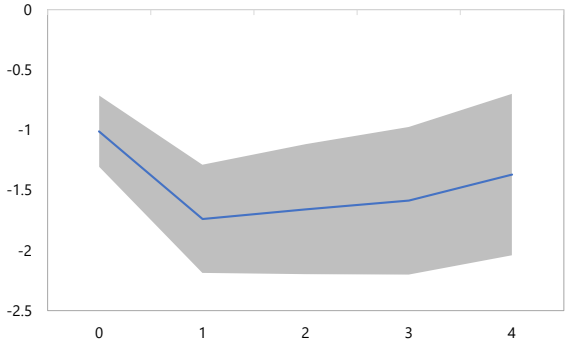
Cumulative Response of Labor Productivity to Recessions (AEs)



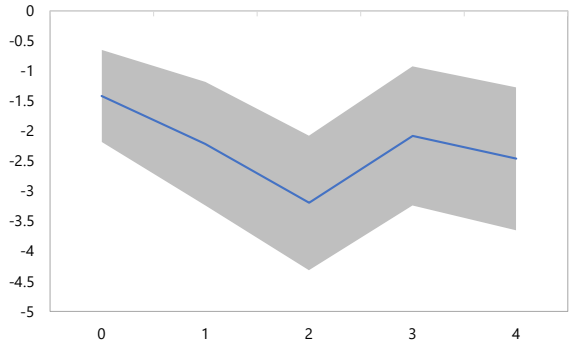
Cumulative Response of Labor Productivity to Recessions (Whole Sample)



Cumulative Response of Investment Rate to Recessions (AEs)

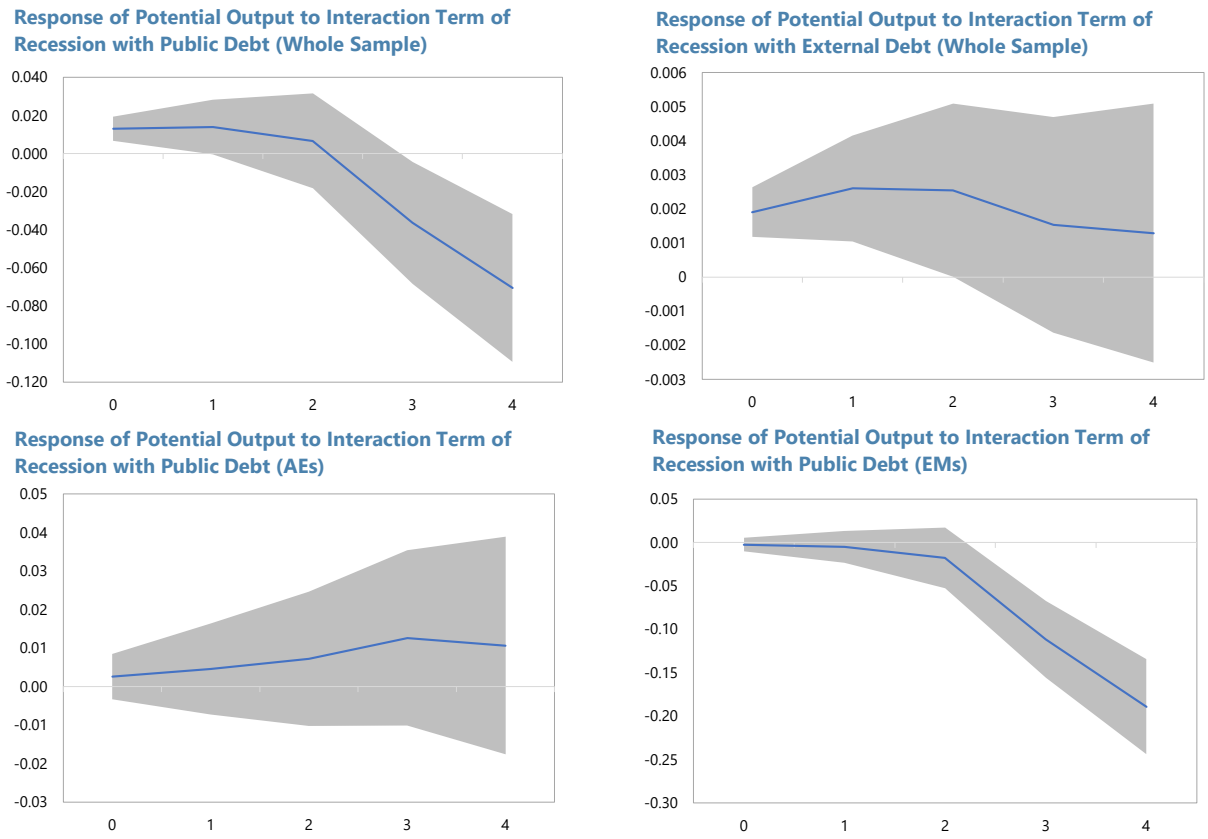


Cumulative Response of Investment Rate to Recessions (EMs)



Sources: Emergency Disasters Database, WDI, WEO, and IMF staff estimates.

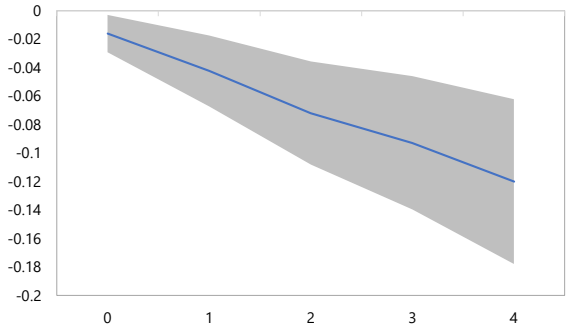
Figure 4. Thailand: The Role of Initial Conditions for Economic Scarring from Recessions



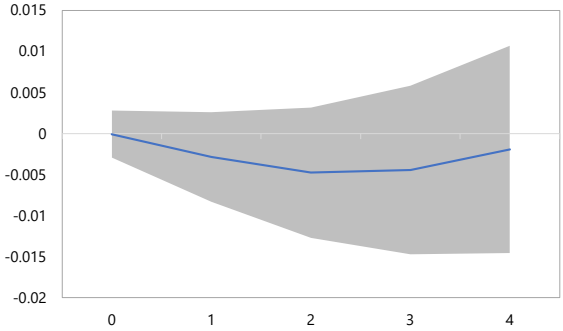
Sources: Emergency Disasters Database, WDI, WEO, and IMF staff estimates.

Figure 4. Thailand: The Role of Initial Conditions for Economic Scarring from Recessions (Concluded)

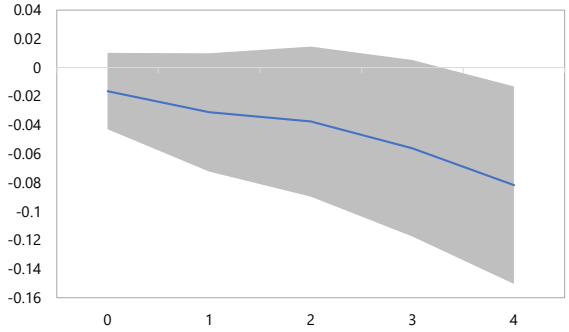
Response of Potential Output to Interaction Term of Recession with Household Debt Accumulation (Whole Sample)



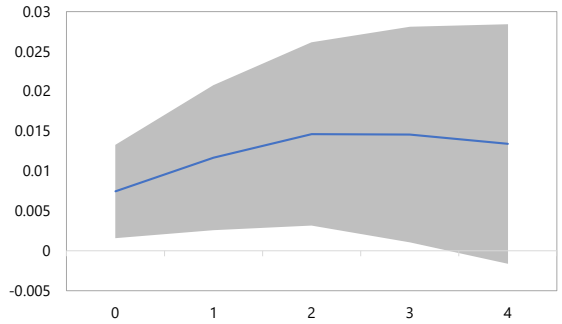
Response of Potential Output to Interaction Term of Recession with Corporate Debt Accumulation (Whole Sample)



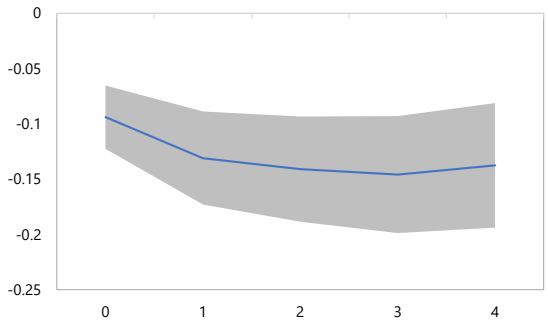
Response of Labor Productivity to Interaction Term of Recession with Household Debt Accumulation (Whole Sample)



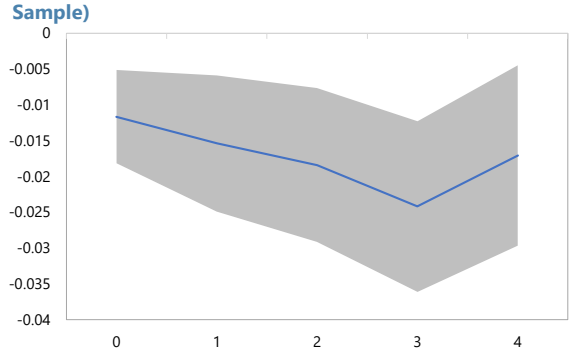
Response of Labor Productivity to Interaction Term of Recession with Corporate Debt Accumulation (Whole Sample)



Response of Investment Rate to Interaction Term of Recession with Household Debt Accumulation (Whole Sample)

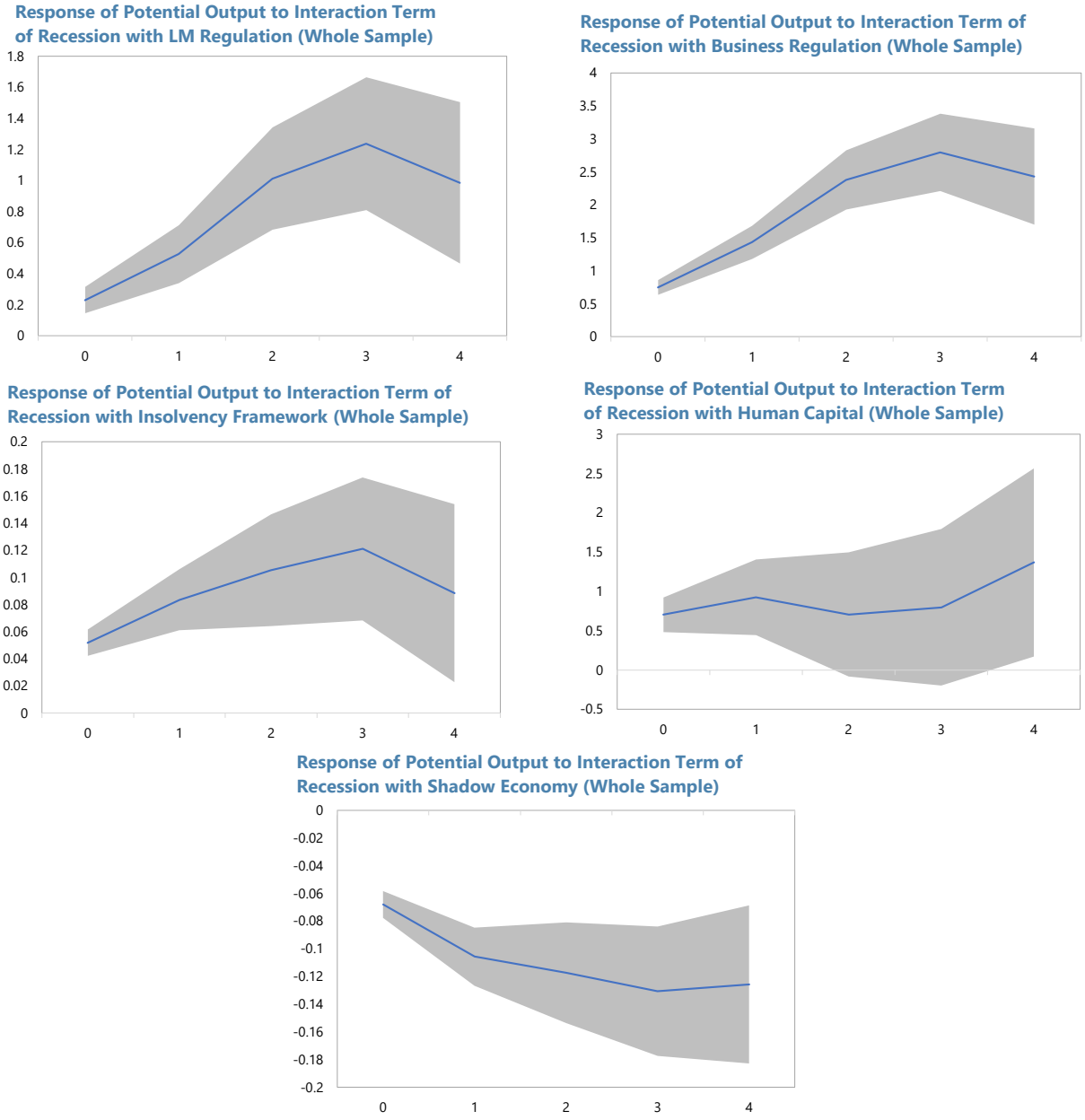


Response of Investment Rate to Interaction Term of Recession with Corporate Debt Accumulation (Whole Sample)



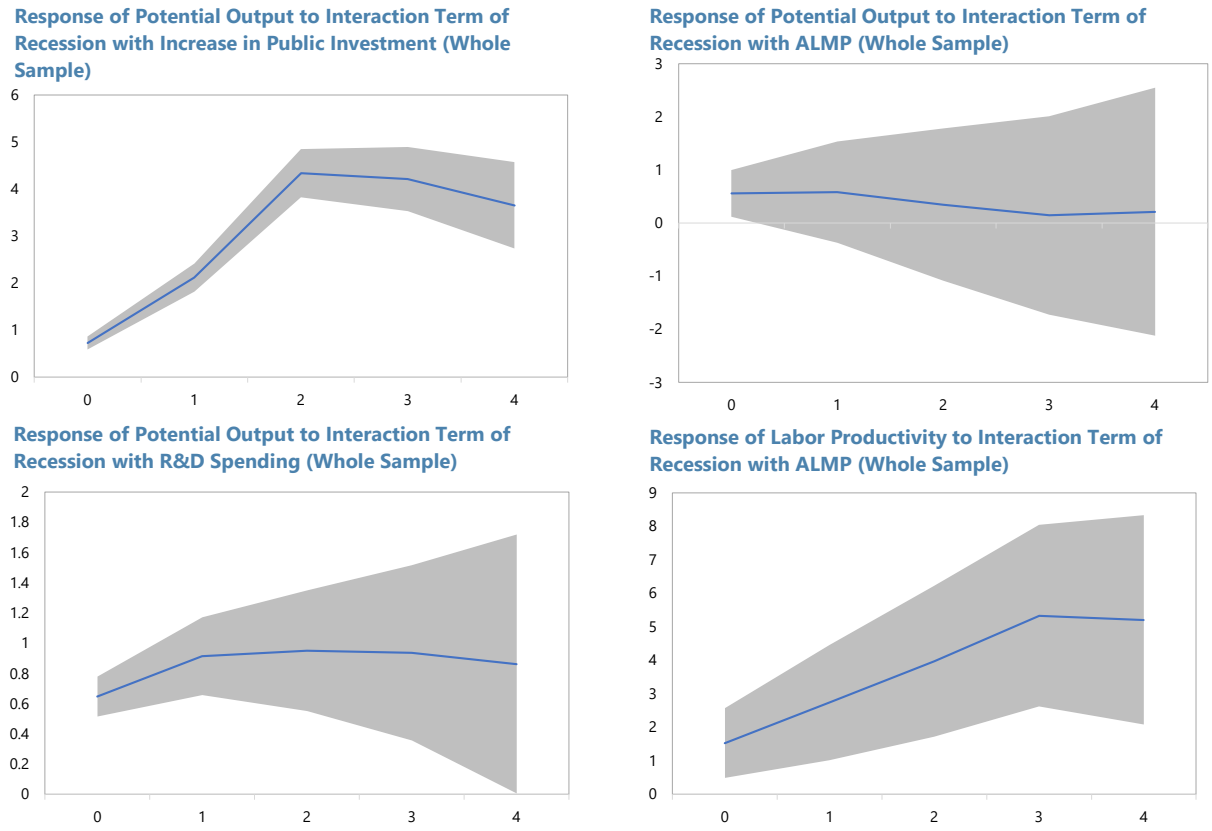
Sources: Emergency Disasters Database, WDI, WEO, and IMF staff estimates.

Figure 5. Thailand: The Role of Structural Factors for Economic Scarring from Recessions



Sources: Emergency Disasters Database, EFW, World Bank Doing Business, WDI, WEO, and IMF staff estimates.

Figure 6. Thailand: The Role of Policies for Economic Scarring from Recessions



Sources: Emergency Disasters Database, WDI, WEO, and IMF staff estimates.

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Appendix IV. Thailand's Vaccination Plans and Updates[1]

This annex describes the Thai authorities' plans on vaccine access, distribution, and allocation. Pre-pandemic, the John Hopkins Global Healthcare Security Index (GHSI) ranked Thailand as the sixth-best prepared in the world and the first in Asia to respond to health events. While the country was very successful at flattening the virus infection curve (at zero domestically) during most of 2020, since late December 2020 there has been a rapid resurgence in COVID-19 infection rates. The authorities' response to the second wave was targeted to specific infection hotspots and was successful in reducing daily new infection cases mostly below 100 in mid-February 2021 from nearly 1,000 in January. However, daily new infection cases increased again in the second week of April suggesting uncertainties on the path of the pandemic.

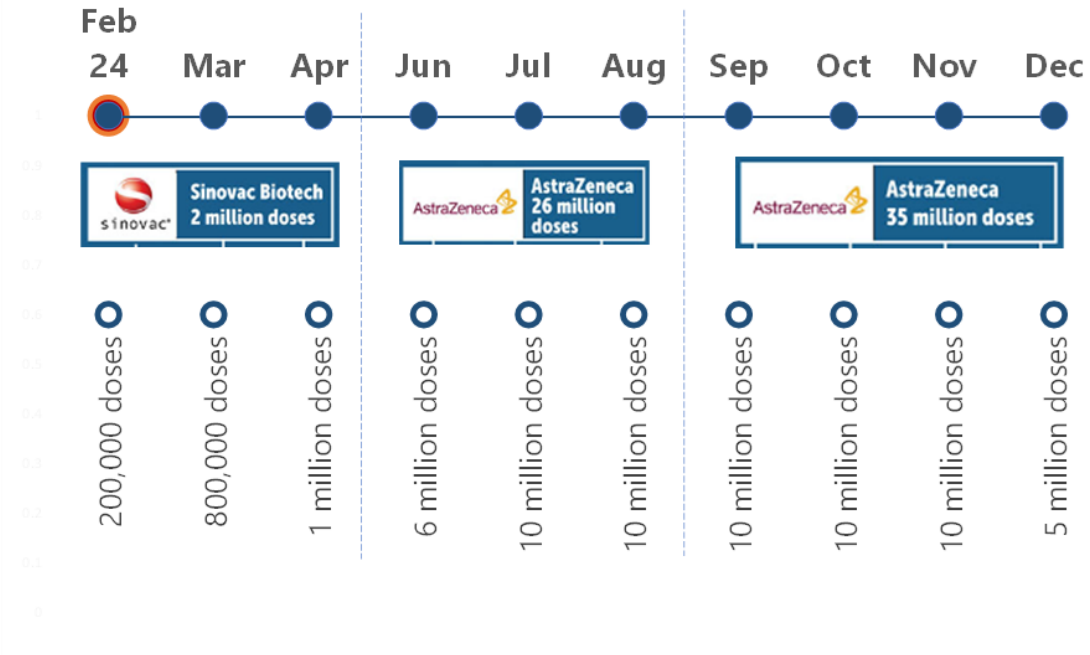
1. Access: Thailand vaccine needs are expected to be met mainly from Oxford/AstraZeneca. The authorities indicated that they also have variety options to procure vaccines from other companies, including from China's Sinovac. Although Thailand has not signed a commitment for short-term access agreement to the COVAX Facility, it has submitted a non-binding confirmation of intent to participate in it. The authorities indicated that AstraZeneca's less-stringent refrigeration requirements of the vaccine, which will make vaccination much easier, reasonable pricing, and vaccine availability were important variables in their decision-making formula. In addition, their cooperation with AstraZeneca allows Thailand to produce vaccine in the country instead of being imported. On October 14, 2020, an agreement was signed between Thailand's Siam Bioscience and Oxford/AstraZeneca with an aim to start large-scale vaccinations by the end of 2021H1. The government signed an agreement to acquire 61 million doses of the AstraZeneca vaccine by the end of 2021. Moreover, the government also procured 2 million doses of the COVID-19 vaccine made by China's Sinovac. Altogether, this will be enough to inoculate about 45 percent of population (text chart). In addition, Thailand plans to vaccinate at least 70 percent of population by the end of 2022. Thailand has received the first delivery of 200 thousand doses of Sinovac and over 100 thousand doses of AstraZeneca vaccines in late February.

2. Distribution: According to the Department of Disease Control (DDC), the government dedicated funds to prepare for the vaccine's transportation and storage, and a monitoring system as well as on a far-reaching *campaign to raise public awareness* about how to get the vaccine. The aim is to develop a transportation scheme with a cold chain system to maintain the high quality of the vaccine while delivering it from the factory to its destination.

3. Allocation: Vaccine rollout started on February 28, 2021. Based on the recommendation of the National Vaccine Institute and Department of Disease Control, in the first phase of inoculation, Thailand has prioritized medical and health personnel, people with chronic diseases, people aged 60 years and over, and disease control workers in contact with patients to be vaccinated first. The vaccination will start from the 13 provinces with high infection rates and economic significance.

[1] Prepared by Ara Stepanyan.

Thailand: Vaccination Plans by the Authorities in 2021



Source: The Center for Covid-19 Situation Administration.

Appendix V. Fiscal Space Assessment and Quantifying the Impact of More Public Investment[1,2]

Thailand Fiscal Space Assessment

The COVID–19 pandemic warrants a large and sustained fiscal response to avoid long-term scars from the crisis. Further support is necessary to protect those in need and to promote a strong recovery. Fiscal policy responses have been shaped by the availability of fiscal space—in turn determined in part by the levels of public debt heading into the crisis. This note provides an updated assessment of the fiscal space for Thailand.

Pre-COVID-19 Initial Fiscal Position

1. Thailand had sizable fiscal space prior to the pandemic. Public debt was assessed to be sustainable, with a projected increase to average about 40–43 percent of GDP over the medium term (well below the 60 percent ceiling in the Fiscal Responsibility Law (FRL)). The FRL that was enacted in 2018 combined with a medium-term fiscal framework cemented Thailand's long-standing tradition of judicious management of the public finances. The cost of debt financing has been relatively low and gaps in public investment efficiency are low compared to other middle-income countries.

Macroeconomic Conditions After COVID-19

2. The COVID-19 pandemic triggered a major economic downturn. Following the pandemic, Thailand's economy was extensively affected most notably through its impact on tourism (a fifth of GDP) and global value chains during 2020. Real GDP contracted by 6.1 percent in 2020, reflecting sharp declines in tourism and related services, exports of goods, and private consumption and investment. Imports also contracted and, therefore, the current account remained sizable—at about 3.2 percent of GDP. Delays in fiscal budget execution added to the subdued macroeconomic environment. A partial GDP growth rebound is expected in 2021 of around 2.6 percent, driven primarily by the external environment and how fast the government can spend to make up for a slump in tourism and trade, the nation's key growth drivers.

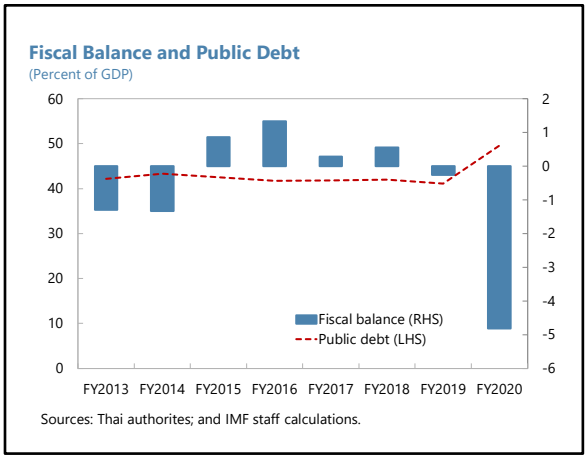
3. Inflation dynamics and potential growth remain weak. Headline inflation was -0.8 percent on average for 2020 and core remained weak at 0.3 percent. Potential output will increase only slowly in the next few years and the output gap is expected to persist over the medium term highlighting the need for structural reforms to unlock the growth potential. Important reforms include improving the efficiency of public investment, addressing challenges from population aging, strengthening social safety nets, raising productivity in an increasingly informal economy, and mitigating and adapting to climate change.

[1] Prepared by Stella Kaendera (with contributions from Dirk Muir on macro simulations on the scaling up of public investment).

[2] There is a presentational difference in the fiscal accounts between staff and the authorities. Therefore, the fiscal numbers may be slightly different. This annex is based on data from staff's presentation of the fiscal accounts using the Fund's Government Finance Statistics Manual (2014).

Fiscal Overview Post-COVID-19

4. The government responded boldly with three successive fiscal packages equivalent to about 10 percent of GDP. While the fiscal support undertaken has saved lives and livelihoods and in part supported the recovery by restoring confidence and permitting a safe reopening of activity, the public sector balance deteriorated substantially to -4.8 percent of GDP in 2020 from -0.3 percent in 2019 and the debt to GDP ratio increased to 49.6 percent of GDP from 41 percent in 2019, due to increased borrowing as well as the contraction in economic activity.



5. The FY2021 budget strikes a balance between supporting the recovery and protecting the vulnerable. Spending plans remain geared to support a post-COVID-19 recovery with a modest infrastructure push—development spending increases only moderately to about 20.5 percent of spending; only slightly higher than the 20.1 percent in the FY2020 budget, but in line with the 20 percent floor mandated by the FRL. The fiscal stance would thus be moderately expansionary—the cyclically adjusted deficit is projected to increase moderately by about 0.5 percent of GDP relative to the FY2020 and public debt would reach about 56 percent of GDP. The authorities also plan to augment spending with the funds approved for COVID-19 measures but unspent in FY2020 on medical supplies and investment to support the recovery. Unwinding of fiscal support in FY2021 would be risky if the recovery is weak and given downside risks. Should downside risks materialize the authorities indicated that they stand ready to provide additional support to protect lives and livelihoods. Early preparation of this contingency package is a priority for proactive deployment and timely execution of budget spending and infrastructure programs.

6. Pandemic uncertainty poses challenges for fiscal policy. Uncertainty on the course of the pandemic, the shape of the recovery, the extent of scarring and the required resource reallocation, the outlook for tourism and global financial conditions, and the contingent liabilities from implicit and explicit guarantees to SOEs heighten fiscal risks. However, those contingent liabilities are closely monitored by the Public Debt Management Office (PDMO) and the Fiscal Policy Committee under the FRL.

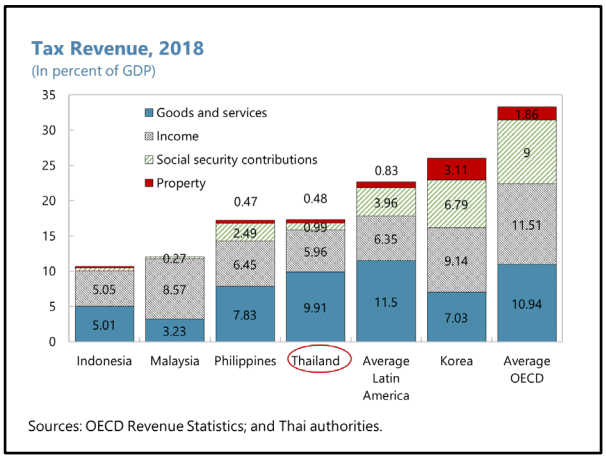
Analyzing Fiscal Space Indicators

7. Under the MAC DSA baseline (Annex VII), Thailand still has some fiscal space after the policy response to the pandemic in 2020. Public debt and gross financing needs are below standard vulnerability benchmarks. Public debt is projected to increase from 49.6 to 55.9 percent of GDP between 2020 and 2021, based on announced fiscal measures, just below the FRL ceiling of 60 percent. The level of debt gradually declines over the medium term as growth recovers but does not revert to the pre-pandemic level. The current cost of financing debt is low: Thailand has strong access to credit markets, with low financing cost, and is supported by ample external buffers. A low share of foreign-currency-denominated public debt and a long average term to maturity (above 12 years) significantly mitigate the impact from exchange rate and interest rate shocks.

8. Nevertheless, in a more protracted scenario the fiscal space further moderates. A deterioration in real GDP growth by 1 standard deviation for 2 consecutive years combined with an increase of 200 basis points in interest rates, where the revenue to GDP ratio remains the same as in the baseline and the level of non-interest expenditures remains the same as in the baseline would trigger a deterioration in debt indicators. Under the real growth shock, the level of debt breaches the authorities' 60 percent ceiling in 2023 and remains above the ceiling in 2024-2025 before a gradual decline to 59.4 in 2026. Debt indicators deteriorate further under a combined shock scenario (real growth and interest rate shock). Under this scenario, public debt would breach the 60 percent of GDP threshold in 2022, increase to 64 percent in 2023 and remain above the 60 percent ceiling throughout the projection period.

9. A rise in contingent liabilities would pose additional challenges for the availability of fiscal space. A one-time increase in non-interest expenditures equivalent to 10 percent of banking sector assets leads to a real GDP growth shock similar to what has been described above, where the deterioration in the primary balance is worse as the liabilities are brought on government books, leading to higher interest rates. Debt climbs to above 70 percent of GDP in this scenario.

10. Rebuilding fiscal buffers post pandemic will require additional effort in revenue generation. Thailand has a relatively low revenue ratio compared to other emerging economies in other regions. A significant revenue mobilization effort should be feasible post-pandemic. Estimates from the IMF's Fiscal Affairs Department (FAD) suggest that Thailand currently collects only 46 percent of its maximum achievable tax collection (given the level of development and the structure of the economy).[3]



Sources: OECD Revenue Statistics; and Thai authorities.

11. Aging related spending is projected to increase steadily in the long run posing further fiscal challenges. The demographic headwinds facing Thailand will have fiscal implications both in terms of pension and health care spending. Expenditure on health care is expected to increase over the coming decades, rising from 2.9 percent of GDP in 2017 to 4 and 4.9 percent of GDP in 2035 and 2060, respectively. Although this estimate includes expenditure financed by contributions, it is likely that a large proportion of the increase (1.1 percent of GDP by 2035 and 2 percent of GDP by 2060) will need to be financed from the budget. Public expenditure in pensions funded by the budget is also expected to increase significantly over the future as the old-age dependency ratio increases.

[3] Based on estimates of countries tax effort, which is the ratio of actual tax revenue as a percent of its estimated tax capacity. See https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Understanding-Countries-Tax-Effort-41132

Scaling up Public Spending to Aid the Recovery and Rebuild Policy Space

12. An additional fiscal expansion in the short term can support the economic recovery from the pandemic, as presented using an IMF macroeconomic model. A pair of illustrative scenarios are presented here using the IMF's Global Integrated Monetary and Fiscal model (GIMF), calibrated to the Thailand economy (Anderson and others 2013; Kumhof and others 2010). GIMF is a dynamic stochastic general equilibrium model with a complete model for consumption, investment, labor, wealth, and capital represented by households, firms, the government, and the Bank of Thailand (BOT). Households maximize their consumption based on the assumption that they do not need to repay all the government debt they incur, which can be left to future generations (Blanchard 1985; Weil 1987; Yaari 1965). This overlapping generations model means that government debt can cause long-term shifts in the current account and net foreign asset holdings and crowd out investment and capital, thereby lowering permanently an economy's productive capacity. Therefore, a fiscal expansion, if not done with great care, can impose a significant debt burden on future generations, offsetting the short-term gains with long-term losses.

13. However, given the severity of the shock to the economy from the pandemic, it is in the best interest of the government to intervene with a vigorous fiscal expansion to support the recovery. The government should use the instruments available to it with the highest and most persistent multipliers. Here, the expansion follows a six-year program of infrastructure investment and transfers targeted to poorer households, using deficit financing. Targeted transfers are increased by 0.5 percent of GDP in FY2021 to FY2022 and tapered off to 0.25 percent of GDP in FY2023, providing an additional immediate lift to household consumption. Infrastructure spending is increased by 1 percent of GDP in FY2021, 2 percent of GDP in FY2022 and FY2023, and 1 percent of GDP in FY2024 and FY2025. Once the infrastructure program is completed in FY2026, there is a permanently higher level of spending of 0.3 percent of GDP in order to maintain the new infrastructure. The impact of higher infrastructure investment is more systemic, not only lifting the level of real GDP through higher government spending, but also lifting the level of productivity in the economy and therefore its productive capacity (Aschauer 1989; Bom and Ligthart 2013). Infrastructure investment provides a positive externality because of the infrastructure improvement related to public goods that facilitate economic activity such as transportation, water supply, and sanitation, or through equipment and buildings needed to provide health care and education services.

14. Fiscal policy interacts with monetary policy, so two scenarios are presented to illustrate varying degrees of policy coordination. The first scenario (red lines in the charts) is the normal conduct of monetary policy, where the BOT raises interest rates in response to increases in aggregate demand and inflationary pressures to maintain inflation near the midpoint of its inflation target range of one to three percent. In the second scenario (blue lines in the charts), the BOT instead decides to accommodate the additional inflationary pressures introduced by the fiscal expansion and leaves interest rates unchanged during the course of the six-year program. By doing this, the BOT's (in)actions will touch off a "virtuous circle" – interest rates are lower than otherwise; inflation is higher than otherwise; real rates are lower than otherwise; real GDP is higher than otherwise, pushing up inflation further, but without a policy response, so even lower real rates than otherwise, and so on.

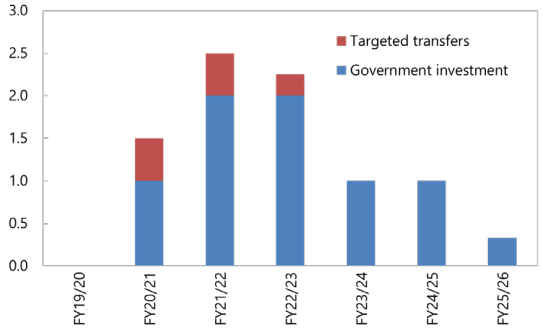
15. The BOT holding interest rates fixed provides greater stimulus than relying on the government's policy actions alone. In the second scenario, inflation rises more, peaking at 2.9 percent in FY2025, but still within the BOT target range. Given well-anchored medium-term inflation expectations and good credibility for BOT policy, inflation does not become unmoored, households and firms know that the BOT will increase the policy rate once the fiscal expansion is concluded, in order to rein in inflation towards the center of the target range. Since inflation is higher and interest rates are unchanged, real interest rates are much lower, raising business investment, which in turn stimulates labor demand and increases income and wealth, allowing for higher consumption. Although the fiscal expansion alone raises real GDP growth by about 0.6 percent points in the first year, combined with accommodative monetary policy, real GDP growth is 1.4 percentage points higher in FY2021, and remains above the baseline growth rates until FY2026.

16. While the fiscal expansion increases the levels of the deficit and debt, the extra growth slows the rate of increase in the debt-to-GDP ratio. Without any additional growth, this fiscal package would increase the debt-to-GDP ratio by 9.5 percent of GDP, but because of the extra growth, the debt-to-GDP ratio peaks at only 8 percentage points higher. With the additional nominal growth from holding interest rates constant, the peak addition to debt is even lower, at only 4.4 percentage points of debt. There is the added benefit that the debt-to-GDP ratio would not breach the FRL 60 percent of GDP debt target.

17. In the short term, the fiscal expansion can reduce the current account surplus, with some long-term benefits. Since Thailand is a small open economy, and the expansion relies on infrastructure investment with a strong import component (plus the issuance of additional government debt), the current account to GDP ratio is well below 2 percent until FY2024 (instead of around 3 percent of GDP), whether or not there is a constant monetary policy rate. Even in the long term, the current account to GDP ratio is slightly lower (about 0.3 percent of GDP) because of the permanent increase in infrastructure investment along with the impact on nominal GDP.

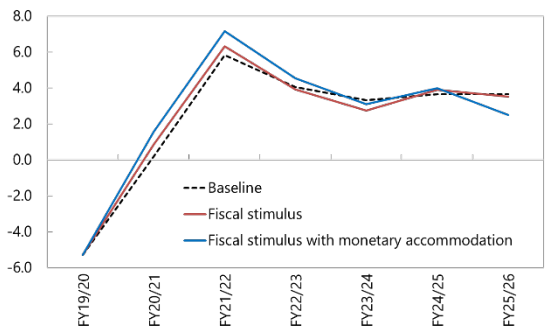
Figure 1. Thailand: Alternative Scenarios Under Fiscal and Monetary Stimulus

Fiscal Measures
(In percent of GDP; impact on deficit)



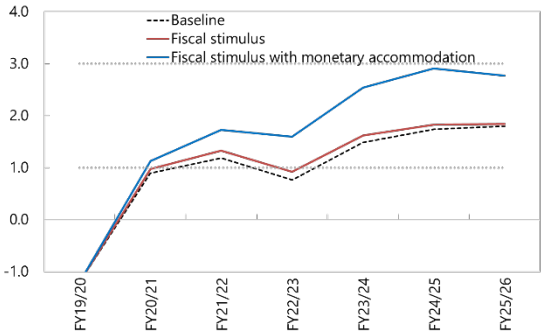
Source: IMF staff calculations.

Growth
(In percent, year-over-year)



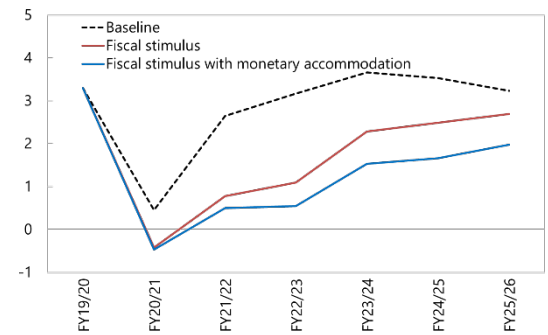
Source: IMF staff calculations.

Inflation
(In percent, year-over-year)



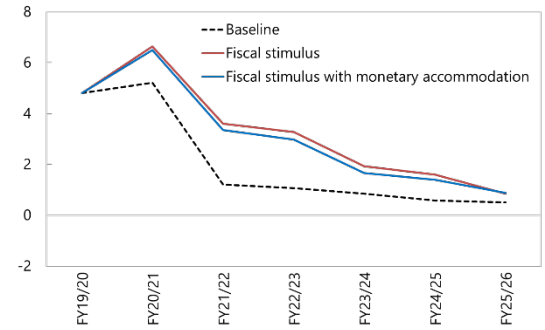
Source: IMF staff calculations.

Current Account Balance
(In percent of GDP)



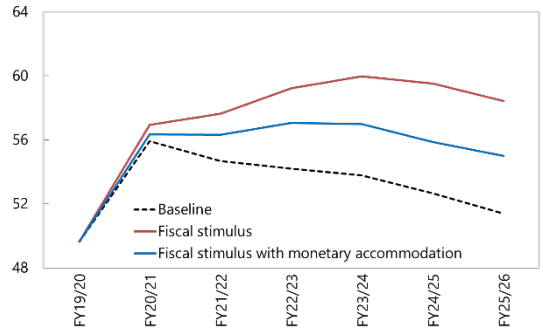
Source: IMF staff calculations.

Fiscal Deficit
(In percent of GDP)



Source: IMF staff calculations.

Public Debt
(In percent of GDP)



Source: IMF staff calculations.

18. Revenue-raising reforms should become a macrostructural reform priority, given setbacks to the revenue trajectory from the pandemic and the demographic headwinds facing Thailand. Staff advises the authorities to articulate a medium-term revenue mobilization plan in line with the Medium-Term Revenue Strategy (MTRS) suggested by the IMF's Fiscal Affairs Department (FAD). This would help create space to finance priority spending, expand social safety net coverage, finance the rising costs of an aging population, and facilitate transitioning to a low carbon economy.

19. Fiscal space should be used wisely to close the output gap, to increase inflation, and to lift potential growth in the medium and long term while securing fiscal sustainability. With interest rates near the effective lower bound (ELB), a scaling up of public investment can have a powerful impact on employment and activity, crowd in private investment, and absorb excess private savings. New investments in healthcare, digitalization and digital infrastructure (which supports social-distancing), and environmental protection and cleaner and more resilient public infrastructure would lay the foundations for a more resilient and inclusive economy, lift up medium-term growth and minimize the risks of pushing public debt very close to (or even above) the 60 percent ceiling in the FRL. Given the risks of protracted long-term scarring, there is a role for fiscal policy in paving the way for the long-term transformation of the economy with other structural reforms to promote investment and address informality and labor market reforms.

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Appendix VI. Thailand's Debt Sustainability Analysis

Thailand's public debt remains below the 60 percent debt limit through the medium term but faces some risks in the event of a protracted downside scenario. The fiscal response, coupled with the sharp decline in output and government revenue, pushed debt to about 50 percent in 2020. Debt is expected to increase to about 56 percent of GDP in 2021 and gradually decline over the medium term, subject to medium-term consolidation. Debt levels could increase further in the event of a protracted pandemic crisis.

1. The macroeconomic and policy assumptions follow the team's macro-baseline projections. In 2021, the economy is projected to moderately recover from the COVID-19-induced slowdown with growth projected at 2.6 percent of GDP though the recovery is not mirrored in fiscal year developments.[1] Over the medium term, Thailand's GDP is expected to expand by an average of about 4.0 percent (2022–2026). The fiscal deficit widened to 4.8 percent of GDP in 2020 as growth slowed, revenues declined, and spending was increased to mitigate the impact of the pandemic on households and firms. The deficit is projected to widen further in 2021 to 5.2 percent of GDP as the government further increases spending to support the recovery and mitigate the effects of the second COVID-19 wave of the pandemic, which hit Thailand in late December 2020. Under unchanged policies, the deficit is expected to narrow to -1.2 percent of GDP in 2022 as the authorities revert to their pre-pandemic tepid fiscal stance and the fiscal stance reverts to neutral over the medium term.

2. Total public sector debt, estimated at 49.6 percent of GDP in FY2020, is mostly medium to long term in nature and denominated in local currency. Thailand maintained a strong fiscal position in the years before the crisis, with expenditures rarely exceeding revenue. There were fiscal deficits only twice from 2013 to 2019, each time at less than 1 percent of GDP. As a result, total debt in 2019 amounted to around 41 percent of GDP, below the 60 percent debt ceiling under the Fiscal Responsibility Law (FRL). The level of debt rose to 49.6 percent of GDP in 2020 due to increased borrowing to finance increased spending in mitigating the impact of the COVID-19 pandemic.[2] About 92 percent of the debt is in medium- and long-term instruments and 97 percent of the debt is denominated in local currency. As a result, debt service in percent of total revenues, which serves as an additional indicator for the authorities to guide fiscal policy, remains very low and well within the authorities' benchmark. Gross financing needs (the sum of the fiscal deficit and maturing debt) increased to 3.7 percent of GDP in 2020 and are projected to increase further to 9.2 percent of GDP in 2021 before declining to an average of 4.6 percent of GDP in 2022–2026. The authorities noted that given the past conservative and disciplined fiscal policy stance, even in pandemic times they continue to maintain strong market access to both domestic financing, given

[1] There is a significant difference between fiscal and calendar year GDP growth projections because of the extraordinary recession affecting two quarters of FY2020 (three quarters of CY 2020) and the quarterly recovery path in 2021. In normal years, the two GDP series are relatively close. Fiscal year (FY) in Thailand begins on October 1. The DSA is based on FY data.

[2] Approved in April 2020, the 1 trillion baht announced borrowing fund aims at shoring up the economy during the coronavirus crisis. 600 billion baht is for health-related spending and financial aid to households and firms and 400 billion baht is for project spending.

the ample liquidity in the financial system, and also external financing, given their large stockpile of international reserves.

3. Under current policies, public debt remains within the 60 percent ceiling throughout the projection period. The public debt to GDP ratio is expected to peak at about 56 percent in 2021 and gradually decline from 2022 as the economy recovers from the pandemic. The level of public debt in the next five years is not expected to exceed the 60 percent ceiling. The baseline also assumes that the government employs the borrowings effectively to support an economic recovery, gradually raises the revenue to GDP ratio and ploughs back spending post pandemic. This will ensure a declining path of public debt though debt does not revert to the pre pandemic level. While the 3-year adjustment in the cyclically adjusted primary balance (CAPB) is relatively large—3.5 percent of GDP—at a percentile rank of 18 percent relative to other market access countries, the adjustment is achievable given the extraordinary circumstances imposed by the pandemic. Moreover, given that 2021 is the beginning of the MAC DSA projection period, debt-to-GDP ratio under the constant primary balance scenario widens over the medium-term by design. However, it should be noted that this scenario is based on a base period of 2020 that registered the worst recession for Thailand since the Asian financial crisis in 1997 accompanied by an exceptional, and appropriately so, fiscal response to mitigate the pandemic with the authorities determined to do "whatever it takes". Thus, 2020 is an abnormal year by all accounts, so this scenario may be less meaningful compared to the constant primary balance scenario test in normal times.

4. Debt dynamics deteriorate under some stress tests. Debt is expected to rise above the authorities' ceiling under the real growth shock and the combined real interest rate and real growth shock scenarios against the backdrop of the pandemic. The MAC DSA threshold however is not breached (as shown in the heatmap). Debt rises to about 60 and 64 percent of GDP in 2023 under the real GDP shock and under the combined shock respectively—as would be in a case where the shock is protracted, interest rates are 200 basis points higher than the baseline and recovery takes longer than anticipated under the baseline. The level of debt remains high over the medium term and breaches the authorities' 60 percent of GDP ceiling all through the projection period under the combined shock scenario. Thus, over the medium term, a comprehensive consolidation strategy is called for to help rebuild fiscal buffers and preserve fiscal sustainability.

Figure 1. Thailand: Public Sector Debt Sustainability Analysis (DSA) – Baseline Scenario

(In percent of GDP, unless otherwise indicated)

Debt, Economic and Market Indicators [1/]

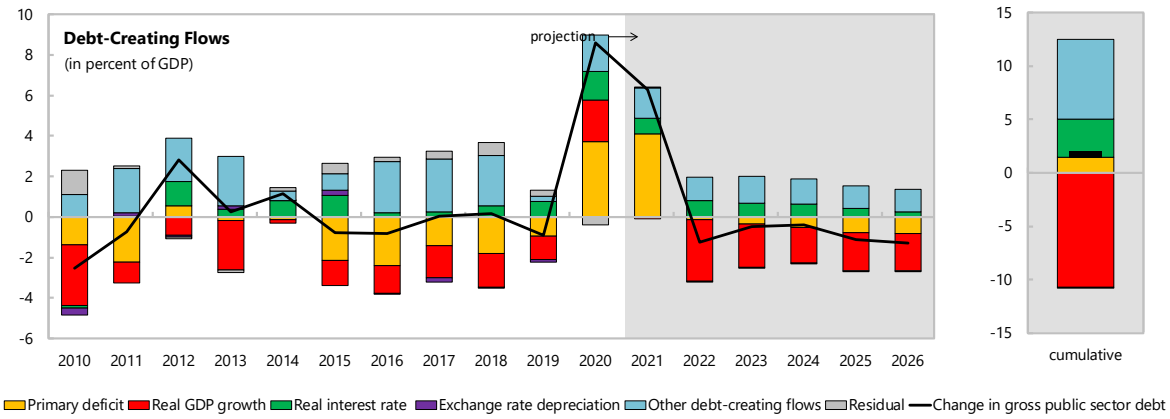
	Actual			Projections					
	2010-2018 [2/]	2019	2020	2021	2022	2023	2024	2025	2026
Nominal gross public debt	41.6	41.0	49.6	55.9	54.7	54.2	53.8	52.7	51.4
Of which: guarantees	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Public gross financing needs	5.6	5.3	10.7	9.1	5.5	5.7	4.7	3.4	3.0
Real GDP growth (in percent)	3.8	2.9	-4.7	0.2	5.8	4.1	3.3	3.7	3.6
Inflation (GDP deflator, in percent)	2.3	1.1	-0.8	0.7	0.4	0.5	0.5	0.8	1.1
Nominal GDP growth (in percent)	6.2	4.0	-5.4	0.9	6.2	4.6	3.8	4.5	4.8
Effective interest rate (in percent) [4/]	3.6	3.0	2.5	2.2	2.0	1.9	1.8	1.7	1.6

As of September 25, 2020

Sovereign Spreads		
EMBIG (bp) 3/		66
5Y CDS (bp)		25
Ratings	Foreign	Local
Moody's	Baa1	Baa1
S&Ps	BBB+	A-
Fitch	BBB+	BBB+

Contribution to Changes in Public Debt

	Actual			Projections							
	2010-2018	2019	2020	2021	2022	2023	2024	2025	2026	cumulative	debt-stabilizing primary balance [9/]
Change in gross public sector debt	0.0	-0.9	8.6	6.3	-1.3	-0.5	-0.4	-1.1	-1.3	1.8	
Identified debt-creating flows	-0.4	-1.2	9.0	6.3	-1.3	-0.5	-0.4	-1.1	-1.3	1.8	
Primary deficit	-1.2	-0.9	3.7	4.1	-0.1	-0.4	-0.5	-0.8	-0.8	1.5	-0.5
Primary (noninterest) revenue and grants	23.9	23.5	23.0	23.5	24.0	24.3	24.4	24.4	24.4	145.0	
Primary (noninterest) expenditure	22.7	22.5	26.8	27.6	23.9	23.9	23.8	23.6	23.6	146.4	
Automatic debt dynamics [5/]	-1.0	-0.6	3.5	0.7	-2.2	-1.4	-1.1	-1.5	-1.6	-7.1	
Interest rate/growth differential [6/]	-1.0	-0.4	3.5	0.7	-2.2	-1.4	-1.1	-1.5	-1.6	-7.1	
Of which: real interest rate	0.5	0.8	1.4	0.8	0.8	0.7	0.6	0.4	0.3	3.6	
Of which: real GDP growth	-1.5	-1.2	2.0	-0.1	-3.1	-2.1	-1.7	-1.9	-1.8	-10.7	
Exchange rate depreciation [7/]	0.0	-0.1	0.0	...	...	...	...	...	...	...	
Other identified debt-creating flows	1.9	0.3	1.8	1.5	1.1	1.3	1.2	1.1	1.1	7.4	
Please specify (1) (e.g., drawdown of deposits) (negative)	1.9	0.3	1.8	1.5	1.1	1.3	1.2	1.1	1.1	7.4	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2) (e.g., ESM and Euroarea loans)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes [8/]	0.3	0.3	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	



Source: IMF staff.

1/ Public sector is defined as consolidated public sector and includes public guarantees.

2/ Based on available data.

3/ Long-term bond spread over U.S. bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as [(r - π(1+g) - g + ae(1+r)]/(1+g+π+gπ)) times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as r - π (1+g) and the real growth contribution as -g.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as ae(1+r).

8/ Includes changes in the stock of guarantees, asset changes, and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

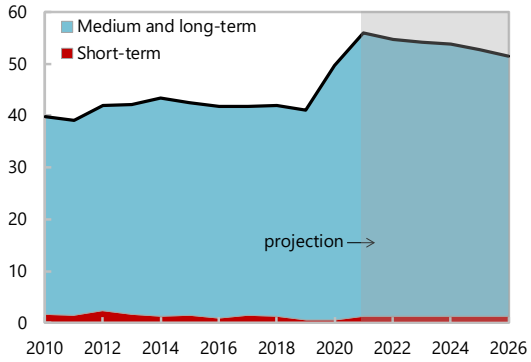
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Figure 2. Thailand: Public DSA – Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

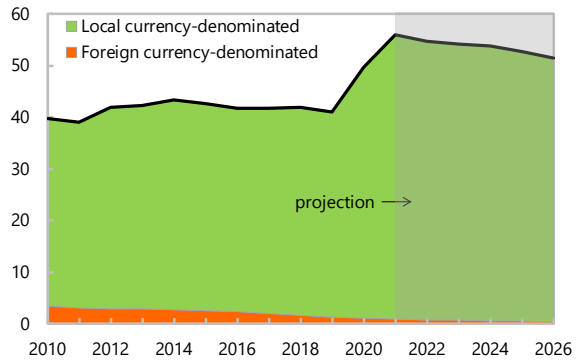
By Maturity

(in percent of GDP)

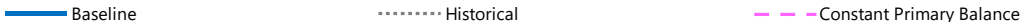


By Currency

(in percent of GDP)

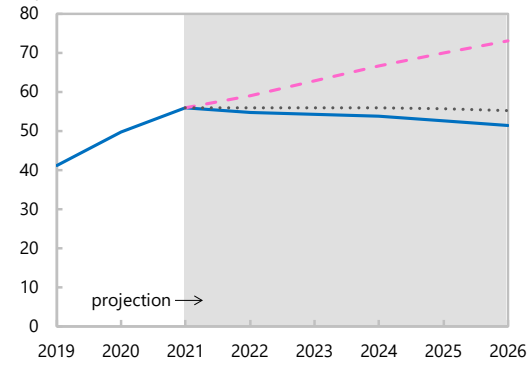


Alternative Scenarios



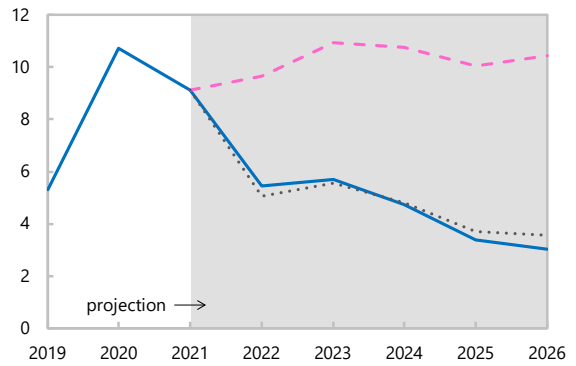
Gross Nominal Public Debt

(in percent of GDP)



Public Gross Financing Needs

(in percent of GDP)



Underlying Assumptions

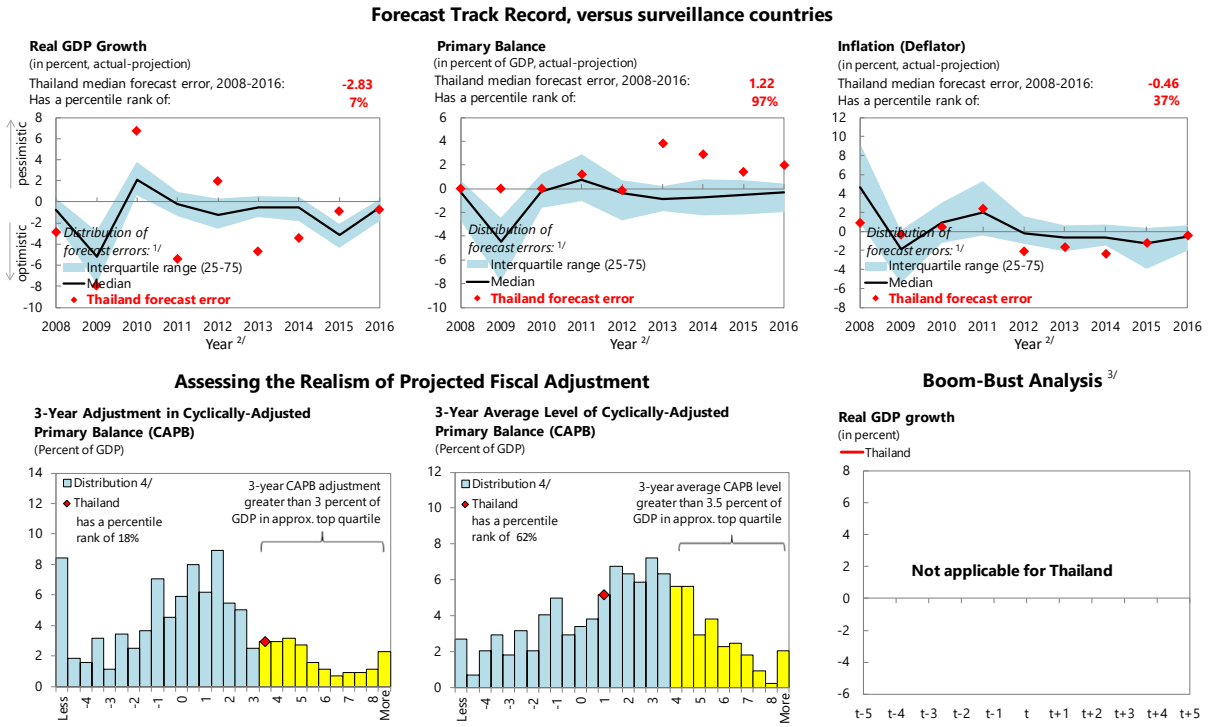
(in percent)

Baseline Scenario	2021	2022	2023	2024	2025	2026
Real GDP growth	0.2	5.8	4.1	3.3	3.7	3.6
Inflation	0.7	0.4	0.5	0.5	0.8	1.1
Primary Balance	-4.1	0.1	0.4	0.5	0.8	0.8
Effective interest rate	2.2	2.0	1.9	1.8	1.7	1.6
Constant Primary Balance Scenario						
Real GDP growth	0.2	5.8	4.1	3.3	3.7	3.6
Inflation	0.7	0.4	0.5	0.5	0.8	1.1
Primary Balance	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1
Effective interest rate	2.2	2.0	1.8	1.7	1.6	1.5

Historical Scenario	2021	2022	2023	2024	2025	2026
Real GDP growth	0.2	2.5	2.5	2.5	2.5	2.5
Inflation	0.7	0.4	0.5	0.5	0.8	1.1
Primary Balance	-4.1	0.7	0.7	0.7	0.7	0.7
Effective interest rate	2.2	2.0	1.9	1.9	1.8	1.8

Source: IMF staff.

Figure 3. Thailand: Public DSA – Realism of Baseline Assumptions



Source : IMF Staff.

1/ Plotted distribution includes surveillance countries, percentile rank refers to all countries.

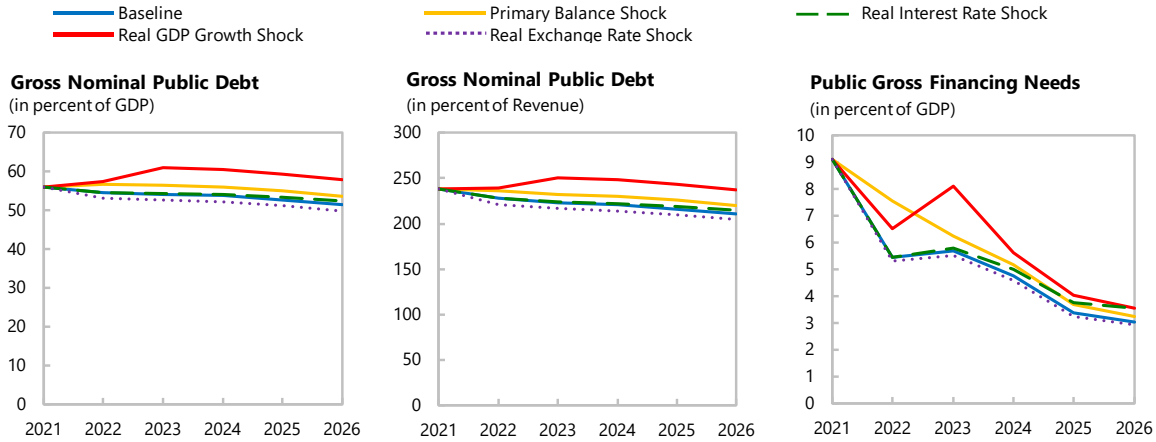
2/ Projections made in the spring WEO vintage of the preceding year.

3/ Not applicable for Thailand, as it meets neither the positive output gap criterion nor the private credit growth criterion.

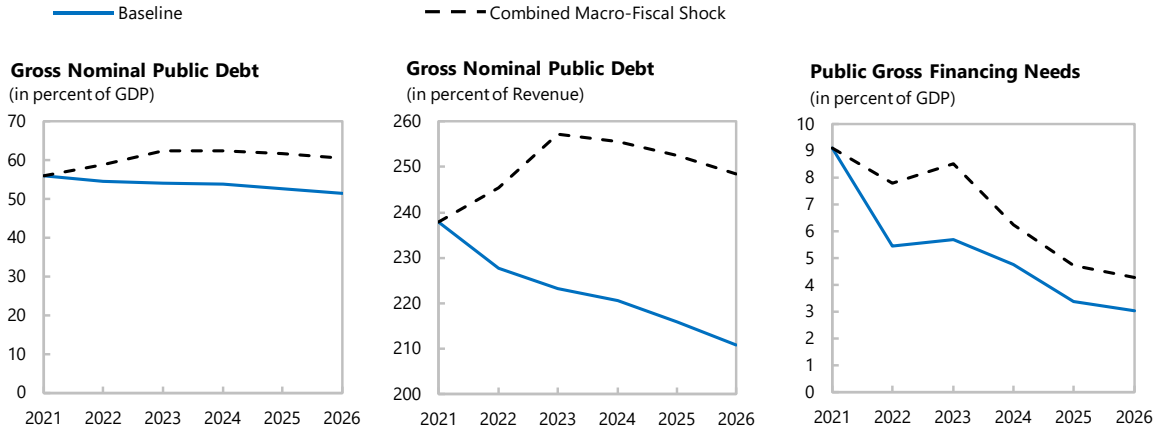
4/ Data cover annual obervations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

Figure 4. Thailand: Public DSA – Stress Tests

Macro-Fiscal Stress Tests



Additional Stress Tests



Underlying Assumptions

(in percent)

Primary Balance Shock	2021	2022	2023	2024	2025	2026
Real GDP growth	0.2	5.8	4.1	3.3	3.7	3.6
Inflation	0.7	0.4	0.5	0.5	0.8	1.1
Primary balance	-4.1	-2.0	0.2	0.5	0.7	0.8
Effective interest rate	2.2	2.0	1.9	1.8	1.7	1.7
Real Interest Rate Shock						
Real GDP growth	0.2	5.8	4.1	3.3	3.7	3.6
Inflation	0.7	0.4	0.5	0.5	0.8	1.1
Primary balance	-4.1	0.1	0.4	0.5	0.8	0.8
Effective interest rate	2.2	2.0	2.1	2.2	2.3	2.3
Combined Shock						
Real GDP growth	0.2	2.9	1.1	3.3	3.7	3.6
Inflation	0.7	-0.3	-0.2	0.5	0.8	1.1
Primary balance	-4.1	-2.0	-1.4	0.5	0.7	0.8
Effective interest rate	2.2	2.0	2.1	2.3	2.4	2.4

Real GDP Growth Shock	2021	2022	2023	2024	2025	2026
Real GDP growth	0.2	2.9	1.1	3.3	3.7	3.6
Inflation	0.7	-0.3	-0.2	0.5	0.8	1.1
Primary balance	-4.1	-0.7	-1.4	0.5	0.8	0.8
Effective interest rate	2.2	2.0	1.9	1.8	1.7	1.7
Real Exchange Rate Shock						
Real GDP growth	0.2	5.8	4.1	3.3	3.7	3.6
Inflation	0.7	3.6	0.5	0.5	0.8	1.1
Primary balance	-4.1	0.1	0.4	0.5	0.8	0.8
Effective interest rate	2.2	2.0	1.9	1.8	1.7	1.6

Source: IMF staff.

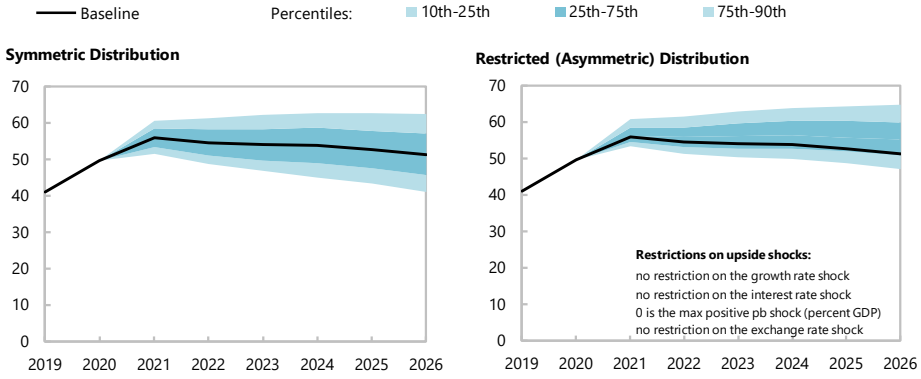
Figure 5. Thailand: Public DSA Risk Assessment

Heat Map

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

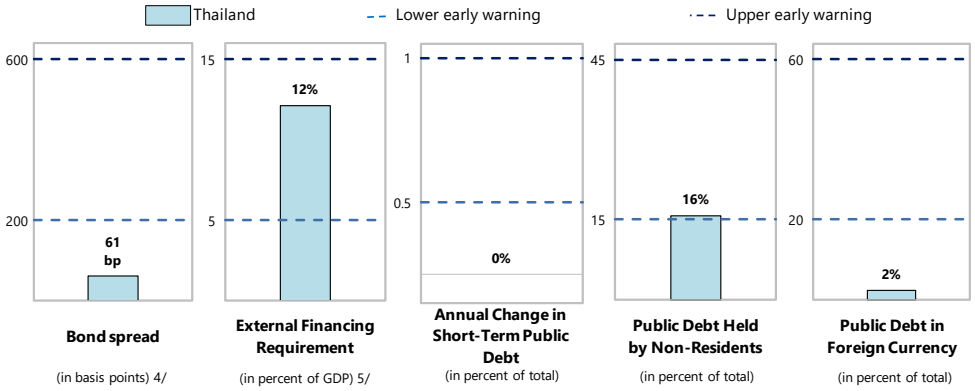
Evolution of Predictive Densities of Gross Nominal Public Debt

(in percent of GDP)



Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2020)



Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 70% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 15% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.
Lower and upper risk-assessment benchmarks are:

200 and 600 basis points for bond spreads; 5 and 15 percent of GDP for external financing requirement; 0.5 and 1 percent for change in the share of short-term debt; 15 and 45 percent for the public debt held by non-residents; and 20 and 60 percent for the share of foreign-currency denominated debt.

4/ Long-term bond spread over U.S. bonds, an average over the last 3 months, 27-Jun-20 through 25-Sep-20.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

Appendix VII. Climate Change Issues for Thailand[1]

Thailand is highly vulnerable to climate change. The country has framed policies to adapt to and mitigate climate change and intends to reduce its greenhouse gas emissions by 20 percent by 2030, and on a conditional basis (with technical and financial assistance) expects it could reduce emissions by 25 percent in that time frame. However, progress so far has been limited due to both planning and implementation challenges. The present COVID-19 crisis offers an opportunity to start the transition toward a climate-resilient and low-carbon economy.

Overview

1. Thailand's extreme weather—droughts and flooding—highlights the country's vulnerability to climate change. Thailand is ranked as the eighth-most impacted by extreme weather events in the last two decades.[2] Climate related disasters affects medium-term growth potential, with large and long-lasting macroeconomic effects and significant social costs in terms of lost lives, food insecurity, and deterioration in human capital. Specifically, the relatively poor north and north-eastern parts of Thailand are highly vulnerable and thus, if unaddressed, climate change has the potential to exacerbate inequality in Thailand.

2. Climate change threatens all three important sectors of Thailand's economy: agriculture, tourism, and trade. Potential economic consequences include productivity changes in agriculture and tourism, strains on health and water sectors, and increased vulnerability to shocks, with implications for fiscal and external sustainability. A one degree of warming would destroy the rice crops that are central to the economy, and forecasts predict that sea level rise will submerge the capital city, displace more than 12 million people in the Bangkok area by 2050 and devastate coastal tourism.[3] Public policies will need to be calibrated to accommodate more frequent weather shocks, including by building policy space to respond to shocks; policies and infrastructure will need to be upgraded to enhance economic resilience and a shift to low carbon emissions.

3. Total greenhouse gas (GHG) emissions (excluding those from land use and the land-use change and forestry (LULUCF)) increased by an annual average of 2.3 percent between 2000 and 2016. The energy sector has been the major source of emissions in Thailand, with an increase of 53.7 percent between 2000 and 2016. The proportion of GHG emissions in the energy sector accounted for 67.2 percent of total emission sources in 2000 and increased to 71.7 percent in 2016 and it will contribute to 76 percent of total greenhouse gas emissions in 2050, without proactive climate policies.

4. The government is taking a number of initiatives to address climate change vulnerabilities. There is an increasing awareness in the government and government agencies that climate change, if not addressed, could compromise much of the hard-earned economic and social

[1] Prepared by Stella Kaendera.

[2] Ranking by the Germanwatch Global Climate Risk Index.

[3] Bangkok, built on once-marshy land about 1.5 meters (five feet) above sea level, is projected to be one of the world's hardest hit urban areas. The Thai National Reform Council predicts that the city of Bangkok could be under water in less than 15 years.

gains in the country. Greater coordination within the government, the private sector, and development partners will play an important role in helping economic agents and governments in enhancing resilience and designing climate friendly policies.

Government Policy Framework and Mitigation Commitments

5. Explicit environmental protection targets have been set for the medium- to long-term, including Thailand's commitments under the 2015 Paris Agreement on climate change. As a party to the Paris agreement, Thailand submitted its Nationally Determined Contribution (NDC) committing to reduce greenhouse gas (GHG) emissions by 20 percent by 2030 (with an additional 5 percent conditional on external financing). In close alignment with the Nationally Determined Contribution, the Office of Natural Resource and Environmental Policy and Planning has designed a Climate Change Master Plan for 2015–50 with interim targets, such as a reduction of GHG emissions from the energy and transport sectors by 7–20 percent by end-2020 compared to 2005 levels.

6. Furthermore, ambitious targets on the share of renewable energy in power generation and consumption have been defined by the Ministry of Energy. To curb greenhouse gas emissions, the Energy 4.0 policy was implemented by the government in 2016 incorporating policies on utilizing renewable energy sources for power-generation, fuel sources in transportation and for increasing energy-efficiency for power generation. However, no data is available to assess Energy 4.0 policy's impact on greenhouse gas emissions.

7. While Thailand's NDC is moderate compared to other ASEAN countries, attaining it will require a combination of measures.[4] Although not legally binding and with no penalties for non-compliance, all countries are required to report (every two years starting in 2020) on progress on NDCs, subject to a common external verification procedure. Achieving the medium- and long-term emissions reduction targets will be challenging given Thailand's high emission intensity starting point relative to comparator countries.

8. To help in developing a more comprehensive carbon footprint reporting, Thailand is preparing the country's first-ever Climate Change bill. If the legislation is enacted, factories and businesses would be obliged to document their greenhouse gas emissions and give the government a better indication of their pollution habits.

Transitioning to a Resilient and Low Carbon Economy

9. The COVID-19 crisis offers an opportunity to begin the transition toward a climate-resilient and low-carbon economy. Given the availability of some fiscal space (Annex VI), there is scope for some adaptation policies for the climate transition including in Thailand's medium-term fiscal plans and the government's forthcoming climate change bill.

[4] Thailand's new NDC is a recommitment to the old NDC levels (20 percent unconditional reduction vs business as usual (BAU) to 2030 and a 25 percent conditional reduction in emissions). As of December 31, 2020, Thailand had not yet published the details of renewed short-term targets.

Table 1. Thailand: Submission status of intended nationally determined contributions (INDCs) in ASEAN Countries

Country	Commitment	Reference year	Target year
Brunei	Reduce energy consumption by	BAU (2005~)	2035
Cambodia*	27 percent	2010	2030
Indonesia	29 percent reduction, additional 12 percent	BAU	2030
Lao PDR	Sector measures to reduce emissions		
Myanmar	Sector based measures to increase	BAU	2030
Malaysia	35 percent, additional 10 percent	BAU	2030
Philippines	70 percent reduction	BAU	2030
Singapore	36 percent reduction	BAU	2030
Thailand	20 percent, additional 5 percent	BAU	2030
Vietnam	8 percent and additional 17 percent	BAU	2030
*Country that is not using a business-as-usual (BAU) scenario as reference for emission reductions.			

Source: United Nations Framework Convention on Climate Change (UNFCCC) INDC submissions.

At the current juncture, policies should be considered to incorporate green investment programs in the fiscal stimulus packages to mitigate the impact of the COVID-19 pandemic. While adaptation is the priority, enforcement of environmental policy and carbon pricing could also be gradually and judiciously implemented as part of the policy response to encourage people and firms reduce energy use and shift to cleaner alternatives.

Greening the COVID-19 Recovery Packages

10. As part of the COVID-19 recovery programs, public policies should be more closely aligned with climate objectives and limit locking-in a carbon-intensive economy. Avoiding a downward economic spiral from the pandemic has required urgent emergency stimulus measures in some instances. Thailand enacted a sizeable stimulus package with spending estimated at 10 percent of GDP to protect lives, mitigate the shock, and protect vulnerable populations and businesses. While the priority has been on reviving the economy, there is now scope for building "green investment" programs into such stimulus and recovery packages that combine adaptation and mitigation measures with efforts to shore up the economy, create jobs, and reduce poverty. The recovery from the crisis can be harnessed to speed up the low-carbon transition by:

- ***Avoiding weakening climate policies***: Support to firms and industries should not be combined with watering down of environmental policies such as weakening environmental rule enforcement, dismantling carbon standards, and relaxation of fossil fuel related taxes, which may be difficult to undo even if intended to be temporary.

- ***Providing bailouts and direct support to firms contingent on environmental improvements***: Support to ailing companies provide an opportunity to steer investment toward low-carbon production modes and emissions reduction by making support contingent on environmental improvements and linking airline bailouts to emission reductions. For example, the bailout of the car industry in the United States following the Global Financial Crisis was used to enforce an agreement on fuel efficiency standards.

- ***Promoting investments in renewable energy and green projects***: Consideration should be given to funding clean energy innovation, research, and development to accelerate advanced research into a clean energy economy, providing incentives (tax breaks or tax credits) for investments in green industries, and providing support for training workers in clean energy and green industries.

11. A green economic recovery could create many opportunities offering significant prospects for job creation. For example, renewable energy, notably solar photovoltaic (PV) systems, employ more people per unit of investment and energy than fossil-fuel generation (International Energy Agency (IEA) 2020). Recently, the IEA announced that solar—which Thailand could benefit from more than most—is now the cheapest form of power globally. Energy efficiency also offers significant opportunities for rapid job creation. Thailand plans to turn the country into an electric vehicle production hub over the medium term and projects about 1.2 million electric vehicles on the roads by 2030. This would cut greenhouse gas emissions, create jobs, and position Thailand at the forefront of this growing new industry. Nature-related jobs—ecosystem restoration—are also an important potential source of employment in the green recovery. Nonetheless, the transition to a greener economy requires investing in new skills, both for newly emerging jobs and for existing jobs that are evolving.

Pricing Carbon Right

12. Without substantial mitigation of GHG emissions, global temperatures are projected to rise by 4°C above pre-industrial levels by 2100.[5] An IMF publication in 2019, the Fiscal Monitor, examined the role that fiscal policy and government regulation can play in supporting aggressive mitigation efforts. The report shows that carbon taxes are the most powerful and efficient tools but average global carbon price is US$2 per ton of CO2, a tiny fraction of the US$75 needed on average (by 2030), to limit global warming to 2°C. Carbon taxes have been in place for almost 30 years in Denmark, Finland, Norway and Sweden, and have been introduced more recently, for example, in Chile, Colombia, France, Ireland, and South Africa (see Table 2).

[5] Temperature projections are from IPCC (2018), which provides confidence bands around the projections.

Table 2. Thailand: Selected Carbon Pricing Schemes, 2019

Country/Region	Year Introduced	Price 2019, $/Ton CO_2	Coverage of GHGs 2018	
			Million Tons	Percent
Carbon taxes				
Chile	2017	5	47	39
Colombia	2017	5	42	40
Denmark	1992	26	22	40
Finland	1990	65	25	38
France	2014	50	176	37
Ireland	2010	22	31	48
Japan	2012	3	999	68
Mexico	2014	1-3	307	47
Norway	1991	59	40	63
Portugal	2015	14	21	29
South Africa	2019	10	360	10
Sweden	1991	127	26	40
Switzerland	2008	96	18	35
Emissions Trading Systems				
California	2012	16	378	85
China	2020	na	3,232	
European Union	2005	25	2,132	45
Korea	2015	22	453	68
New Zealand	2008	17	40	52
RGGI*	2009	5	94	21
Carbon price floors				
Canada	2016	15	na	70
United Kingdom	2013	24	136	24

Sources: IMF Fiscal Monitor, 2019.
Note: * The Regional Greenhouse Gas Initiative is a market-based program in 10 states in the eastern part of the United States.

13. A carbon pricing policy should be considered as part of the policy response for the post COVID-19 recovery to encourage use and a shift to cleaner alternatives in Thailand. Fossil fuels still dominate the energy mix and the price of carbon is low, reinforcing the need for a carbon pricing strategy or complementary policies. A higher carbon price, if judiciously applied with adequate preparation, will over time likely generate behavioral changes that will result in fewer emissions by switching to more energy-efficient products and capital (including lighting, air-conditioning, cars, and industrial machinery), as well as a switch to cleaner fuels—for example, from coal to natural gas in power generation to wind, solar, hydro, and nuclear, all of which produce no carbon. Carbon pricing would also raise revenue and generate local environmental benefits (e.g., reductions in air pollution); and is administratively straightforward. The government has stated that it is open to considering a carbon pricing scheme although implementation may take some time, as well as a vehicle CO2 emissions tax scheme and tax incentives to promote investment in renewable energy, among other initiatives. Periods of low energy prices and the long-term need for revenues to enable broader fiscal reform, could potentially open a unique window of opportunity to phase in carbon taxes—or instruments that resemble taxes.

14. Thailand has some experience of creating voluntary carbon markets and is currently considering a national emission trading system. The government established the Thailand Greenhouse Gas management Organization (TGO) to implement and manage GHG emissions projects. In 2013, TGO launched the Thailand Voluntary Emission Reduction program and the

Thailand Carbon Offsetting Program for public and private organizations and projects to reduce emissions annually and to calculate their carbon footprint and buy carbon credits to offset their unavoidable emissions. In 2015, TGO launched the Thailand Voluntary Emission Trading Scheme as a pilot, setting up the infrastructure to develop a national emission trading system and identify gaps and opportunities. The Climate Change Act is expected to facilitate the development of economic instruments that enhance GHG emissions reduction by private sector, with a cabinet decision expected in 2022.

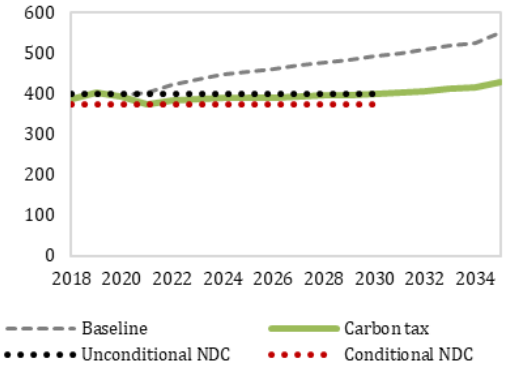
15. The Fund however recommends carbon taxes over emissions trading systems as taxes can provide more certainty over future emissions prices, raise revenue, and are relatively technically less complex as an extension of existing fuel tax administration. An IMF spreadsheet tool is used to project fossil fuel CO_2 emissions and mitigation policies estimates needed to meet Thailand's mitigation pledge in 2030 (see Figure 1).[6] Meeting Thailand's Paris pledge implies reducing CO_2 emissions by 20 percent below baseline levels in 2030. [7] The model suggests it would require a US$50 carbon tax to achieve the unconditional NDC (left) and US$90 to achieve their conditional NDC (right). The carbon tax would also raise 2 percent of GDP in revenues by 2030 and generate environmental benefits including reducing exposure to local air pollution from fossil fuels.

Figure 1. Thailand: Carbon Tax Scenarios

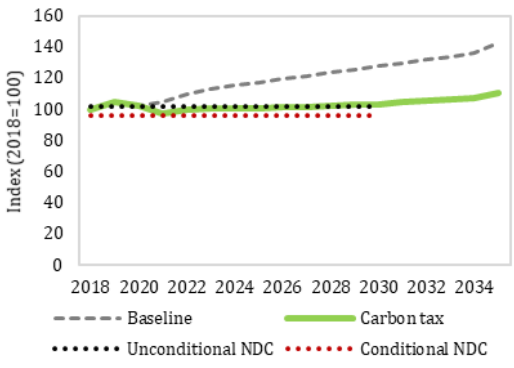
Excludes GHGs from land use, land use change, and forestry (LULUCF).

NDC target for Thailand is a target for 2030 against business-as-usual. Conditional NDC is conditional on climate finance.

Projected Total GHG Emissions
(excluding LULUCF, for US$50 Carbon tax per tCO2e, 2018-2030), Thailand



Indexed GHG Emissions vs. 2015 NDC
(all gases/sources excluding LULUCF, 2018=100)



16. Getting the design right is critical. Carbon pricing should comprehensively cover emissions. Ideally the carbon price ramps up progressively in a predictable way over time in line with a country's mitigation commitments under the Paris Agreement. And the revenues should be used both equitably and—to contain overall costs for the economy—productively, for example, to lower taxes on labor and capital that harm incentives for work effort and investment. The high carbon

[6] The estimate of carbon pricing was done in close consultations with FAD experts.

[7] Assuming CO_2 emissions must fall in the same proportion to total GHGs.

price consistent with the 2030 pledge could face political economy challenges. This underscores the need for a well-coordinated strategy, including reinforcing fiscal instruments to strengthen mitigation incentives at the sectoral level, for example, for electric vehicles or carbon free power generation.

17. A key challenge is how best to smooth the burden higher energy prices place on low-income households. The carbon tax determined under the IMF model would increase electricity, oil, and natural gas prices and significantly raise coal prices. Under the tax, coal prices would increase significantly in 2030 relative to baseline, retail electricity would increase by about 50 percent, gasoline by about 58 percent and kerosene by 60 percent. However, holding prices below levels needed to cover the supply and environmental costs of energy, is an inefficient way to help poor people. Most of the benefits, typically more than 90 percent according to IMF estimates (Arze del Granado, Coady, and Gillingham, 2012), go to higher-income people, who use more energy on a per capita basis than poor people do. More effective in helping the poor are targeted measures such as adjustments to the tax and transfer/benefit system, which may require only a small fraction of the carbon pricing revenues (Dinan, 2015). Focus should be on the whole policy package (which can include numerous, simultaneous adjustments to other tax and spending policies). More broadly, households, workers, and firms more vulnerable to higher energy prices can be identified and compensated adequately including through the transfer system.[8]

Greening the Financial System for Climate Resilience

18. The financial system can play an important role by mobilizing the resources needed for investments in climate mitigation and adaptation. Although there is no costing for climate change investments, Thailand needs are likely to be significant and government financing alone will not be sufficient to finance the transition to a low-carbon future. Sustainable financing from the financial sector can contribute to climate change mitigation by providing incentives for firms to adopt less carbon-intensive technologies and specifically financing the development of new technologies. In addition, green bond market also offers an avenue to tap into the huge US$100 trillion pool of long-term private capital managed by global institutional fixed-income investors with long duration.

19. The financial system should however achieve better understanding and management of climate-related financial risks. Risks could arise from damage to property, infrastructure, and land as well as from changes in climate policy, technology, and consumer and market sentiment during the adjustment to a lower-carbon economy. Exposures manifest themselves through increased default risk of loan portfolios or lower values of assets. For example, rising sea levels and a higher incidence of extreme weather events can cause losses for homeowners and diminish property values, leading to greater risks in mortgage portfolios. Tighter financial conditions might follow if banks reduce lending, in particular when climate shocks affect many institutions simultaneously.

20. Exposure to firms with business models not built around the economics of low carbon emissions could also exacerbate risks. Fossil fuel companies could see their earnings decline,

[8] See also a recent IMF APD-FAD departmental paper on Fiscal Policies for Climate Change in Asia.

businesses disrupted, and funding costs increase because of policy action, technological change, and consumer and investor demands for alignment with policies to tackle climate change.

21. To preserve financial stability, prudential policies should adapt to recognizing systemic climate risk by requiring financial institutions to incorporate climate-related risk scenarios into their stress tests. Capturing climate risk properly requires assessing it over long horizons and using new methodological approaches, so that prudential frameworks adequately reflect actual risks. In the United Kingdom, prudential regulators have incorporated climate change scenarios into stress tests of insurance firms that cover both physical and transition risks.

Mainstreaming Climate Change into the Macro Fiscal Framework

22. Institutional capacity should be strengthened to integrate climate plans into the government's budgeting process and development plans. Changing weather patterns could disrupt traditional business models, lead to the dislocation of economic activities, decelerate economic growth, hinder the efficiency of public service delivery, and create new pockets of poverty. It is therefore imperative to prepare and plan for adapting to the effects of climate change through well-articulated strategies with financing arrangements in place. Further, the private sector along with other stakeholders should be mobilized, to employ adaptation and mitigation approaches, harnessing cost-efficient production technologies.

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Appendix VIII. Options for Unconventional Monetary Policy for Selected Asian EMs[1]

Thailand's policy interest rate is at a historic low and approaching an effective lower bound (ELB). At the current juncture, with unprecedented headwinds from the second COVID-19 wave, the economy is once again facing enormous pressures to output and employment. Given that the use of unconventional monetary policy (UMP) in an emerging market context has been limited, this appendix draws on country experience, recent Fund guidance, and emergent research on the use of UMP in an EM context. Care must be taken to avoid the potential side effects of these new policies, including by adhering to a well-articulated exit strategy.

1. The COVID-19 pandemic presents unprecedented economic challenges for policymakers. There is considerable uncertainty around how the pandemic will evolve. This requires greater efforts by policymakers to contain the spread of the virus and protect lives and livelihoods. However, many countries have already undertaken very large fiscal stimulus, incurring large debt burdens, which risk higher EM borrowing costs and credit rating downgrades, as well as monetary easing, in some cases in unprecedented and innovative ways. Given that many EMs now have narrower policy space, it is worthwhile to consider what more can monetary policy do through UMP.

2. The use of UMP by EMs is largely an uncharted territory. UMP was used following the Global Financial Crisis by AEs, with some success. However, the experience of EMs is very limited. EMs differ from AEs, often with less developed and liquid financial markets, fewer available safe assets, and a shorter track record of central bank inflation targeting, independence, and governance. Asian EM central banks in particular have not had to resort to UMP as policy interest rates for many are currently well above zero (save Korea and Thailand). However, the relevant limit for EMs is the effective lower bound (ELB, the value below which the policy rate becomes counterproductive because of market distortions and increased financial stability risks. The ELB is non-zero for most Asian EMs, as very low rates are likely to disrupt access funding markets, or technical constraints that could have adverse impacts on bank's balance sheets or profitability, such as in Thailand, where banks pay fees to the country's Financial Institutions Development Fund (FIDF).[2] Perhaps during the COVID-19 pandemic there is a case to use UMP measures as a complement to the monetary policy rate.

What Options are Available to Asian EMs?

- **Negative interest rate policy** where the policy rate is driven below zero for an extended period of time. Negative interest rates have been used with some success in advanced economies (such as Denmark and Switzerland). Negative interest rate policy has benefits for borrowers, as it reduces their costs. Negative rates can discourage banks from holding deposits at the central

[1] Prepared by Dirk Muir and Sanaa Nadeem.

[2] The FIDF holds bonds from the bank bailouts during the Asian Financial Crisis. It is slowly being wound down over time by collecting contributions from the banking system to pay off interest and principal on those bonds. The current contribution is 23 basis points on banks' deposit holdings; it was 46 basis points prior to February 8, 2020, when it was lowered due to the COVID-19 pandemic, to allow further room for interest rate cuts by banks without reducing their profitability.

bank and encourage more lending. Increased lending in the economy should stimulate demand, and at least prevent deflation. However, negative rates can penalize bank profitability, at a time when Asian banks' balance sheets are likely already more vulnerable because of the pandemic. Negative rates can also be a disincentive for savers and encourage excessive cash-holding, which could encourage search for yield behavior, leading to financial stability risks. As small open economies, many EMs could also be subject to the risk of disruptive capital outflows.

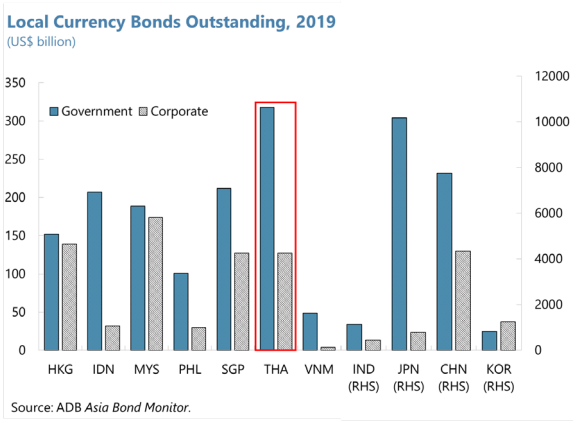
- **Asset purchases**. The ultimate objective of asset purchases is to lower yields for all borrowing in the economy, by compressing risk and term premia even at the long end of the yield curve. This can take place through various channels, including portfolio rebalancing, expectations, and asset prices.
    - One way to do this is through **quantitative easing (QE)**, which involves large scale asset purchases. However, given shallow markets and limited supply of government bonds in Asian EMs, the technical requirements to carry this out effectively, and uncertainties about whether the quantity purchased will translate to the desired yields, QE may not be as effective in an EM context relative to the more liquid and developed AE markets.
    - An alternative is **yield curve control (YCC)**, which, under a well-communicated strategy, could more effectively and credibly guide market expectations in a shallow market. Theoretically, YCC carries the risk of committing to unlimited purchases. But in practice, as demonstrated by the case of Japan among the AEs, required purchases might be relatively limited, as private agents would expect intervention, if required, driving yields lower because of the expectations channel—much like the control of inflation in inflation targeting, or of the exchange rate in a fixed exchange rate regime.
    - Both these alternatives can be carried out through secondary debt markets, and would be superior to a third method, of **monetization** of government debt in the primary debt market. Direct monetization comes with large risks of fiscal dominance, where monetary policy objectives of price and financial stability could be subsumed by the needs of the government.
- **Forward guidance** can be used to communicate that rates will stay low for a long time, but also buttress the impact of asset purchases. A central bank can clearly signal its intentions to keep rates low in line with economic conditions, which can help bring longer-term rates down. Central banks could also introduce explicit conditions before it would move monetary policy instruments using clearly communicated time horizons (i.e. no movement for 24 months) or economic conditions (unemployment returning to a particular level, or output growth rebounding above a certain threshold). State-dependent forward guidance would be easier to institute than time-dependent, as timelines could be easily disrupted by sudden capital flow shocks, especially during the COVID-19 pandemic, which is of highly uncertain duration. One way around this problem would be using time-dependent forward guidance with a state-dependent escape clause.

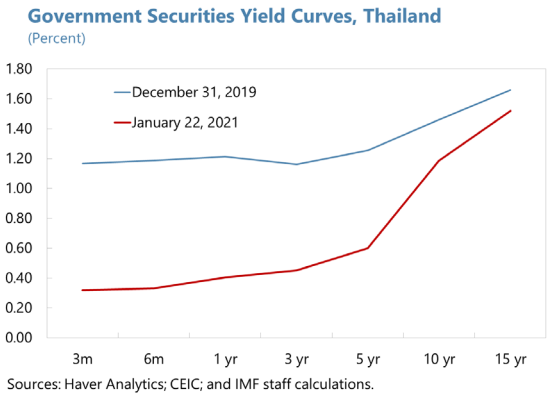
3. There are several options Asian EMs can consider depending on country circumstances. For many Asian EMs, some consideration should be given to YCC, especially the

softer approach, which aims to prevent yield curve steepening, with adequate preparations. Given the likelihood of large scale fiscal expansions in the second wave of COVID-19 and vaccination challenges, managing volatility at the long end of the yield curve can encourage long maturity debt issuance and head off the pressure for direct off-market purchases that could compromise the credibility of the monetary policy framework. India has already had success with this approach, particularly during the global financial turbulence in early- to mid-2020. To facilitate the successful use of UMP instruments, an exit strategy and clear communication would be essential. Given the highly uncertain nature and duration of the pandemic, exit requires strong forward guidance.

4. Admittedly, relative to advanced economies, UMP could have smaller benefits. But given the uncertainty around the pandemic, UMP clearly merits some consideration by Asian EM central banks, especially when coordinated with fiscal support and sound macroprudential policies. There might be merits to using a variety of UMP instruments, as each may only have a relatively small marginal effect, but a coordinated mix could potentially have large cumulative reinforcing impact.

Figure 1. Thailand's Financial Markets





5. In the case of Thailand, asset purchases might be best course of action, in particular, the softer approach to YCC, along with forward guidance. QE and YCC are the same means to an end: to reduce or prevent the increase in the cost of borrowing through purchasing of high-quality assets. Experience in Japan and India suggests that using YCC sends stronger price signals with fewer purchases of government bonds, an important feature in a smaller market like Thailand. QE would probably have less of a positive effect on inflation expectations in the case of Thailand as it is likely less clear to Thai market participants (than, for example, the Japanese market) the link between quantities purchased and stimulus to aggregate demand, as opposed to link between the level of yields and aggregate demand.

6. The Thai market may not be large enough to sustain an effective QE program, but the BOT might be able to use YCC given the market is medium-sized. While the Thai market is more limited in size than those of the AEs, it is still the largest of the ASEAN countries (Figure 1, left panel), with a high share of domestic investors (at least 70 percent in the various segments). Therefore,

Given the smaller market size, it may be more difficult for the BOT to hold to a preannounced schedule of asset purchases for QE. Markets could interpret such deviations as a change in monetary policy, when in fact its actions are being driven by market conditions—an issue not faced by very large debt markets like those of the United States or the euro area. While there are some gains to be made by flattening the yield curve in Thailand, the BOT could at a minimum commit to prevent any steepening of the yield curve if downside risks materialize, as the government is issuing new debt to cover its fiscal stimulus measures. A flatter yield curve could lower yields by 30 to 100 basis points for maturities over 5 years (Figure 1, right panel). By focusing on longer maturities, there can be better signaling to corporate debt markets, which already issue a lot of debt at those maturities. In 2019Q4, for example, 43 percent of bond issuance by larger corporations (about 90 billion baht of the outstanding stock of 3,800 billion) had a maturity of 5 years or longer and have spreads of around 100 to 300 bps relative to government bonds (ADB, 2020).

7. There are concerns about Thailand being an untested market, but Thailand's size may be an advantage in this case. One concern is that too much stimulus in an untested market could lead to rapidly increasing inflation, beyond some controlled overshooting that would lower real interest rates and increase stimulus. In practice, there has been little overshooting of inflation from these programs (Dell'Ariccia, Rabanal, and Sandri, 2018). Even if Thai inflation were to begin accelerating quickly, the BOT could more rapidly unwind its program than for example, the U.S. Federal Reserve, as the likelihood of international spillovers are much less (i.e. the "Taper Tantrum").

8. Overall, the impact of an asset purchase program may be limited in Thailand. The corporate sector still has a heavy reliance on bank lending relative to the issuance of fixed income. By the end of 2020, there were US$460 billion of outstanding bank loans versus US$120 billion of corporate bonds. However, the existence of an asset purchase program could have some impact on whether firms continue to borrow from banks or issue fixed income.

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Dell'Ariccia, G., P. Rabanal, and D. Sandri, 2018, "Unconventional Monetary Policies in the Euro Area, Japan, and the United Kingdom," *Journal of Economic Perspectives*, 32(4): 147-172.

Appendix IX. Addressing Corporate Sector Scarring for Thailand[1]

The COVID-19 crisis has severely impacted economic activity in Thailand, particularly in contact intensive sectors, thereby straining the health of nonfinancial corporates. Many of these are micro, small, and medium enterprises (MSMEs) that comprise a predominant share of employment. Continued stress for corporates can imperil the speed and robustness of the overall recovery, as well as present risks to the financial system. This appendix discusses policy options to aid firms through the recovery, and the eligibility for such options. Well-targeted and timely policy support to viable firms and efficient liquidation of unviable firms will be essential to the recovery and the reallocation of resources in the economy to support long-term growth.

COVID-19 and Thai Corporates

1. The COVID-19 pandemic has had pervasive effects on the Thai economy. The impact has been felt disproportionately by firms in contact-intensive sectors (including food and accommodation, transportation, and retail), which in turn comprise mainly of micro, small, and medium enterprises (MSMEs).[2] According to the Office of Small and Medium Enterprises Promotion (OSMEP), in 2019, MSMEs comprised a significant share of firms (3.2 million, or 99 percent of the total), and accounted for 12.1 million jobs (about 30 percent of total employment), 35.3 percent of GDP and 13 percent of exports. Two-thirds of MSMEs are in the trade and services sectors. Several larger firms are also in contact-intensive sectors, such as airlines, hotels, and retail.

2. Pre-COVID-19, Thai firms were generally healthier than prior to the Asian Financial Crisis, though productivity had been declining. Corporate debt to GDP in Thailand is high relative to peers at around 51.4 percent of GDP. Data from Orbis suggest an increase in the prevalence of zombie firms in Thailand since the Global Financial Crisis (those which are unable to cover debt servicing costs) relative to peers, which tend to have lower productivity than other firms (IMF 2018, Bauer and others 2021).[3] Corporate non-performing loans (NPLs) had been low (about 3 percent), though are higher among MSMEs (8 percent). Bank lending is the predominant form of firm financing, though larger investment-grade corporates have increasingly tapped into the bond market with longer-term issuances as yields have hit record lows (Thai Bond Market Association 2019). By contrast, only a third of bank lending is directed at MSMEs; many smaller MSMEs tend to borrow from specialized financial institutions and savings cooperatives, and for very small enterprises, it may be difficult to distinguish between personal and business loans.

3. In response to the pandemic, the Thai authorities undertook several timely deferral and regulatory measures to assist corporates in 2020Q2. These measures, aimed at easing immediate liquidity pressures on affected firms, include a 500-billion-baht soft loan scheme, debt payment moratoria, and loan guarantees by the Thai Credit Guarantee Corporation. These measures came in the backdrop of an ultra-accommodative monetary stance. For the soft loan scheme, the eligibility criteria were initially set for performing MSMEs holding credit line below 500 million baht;

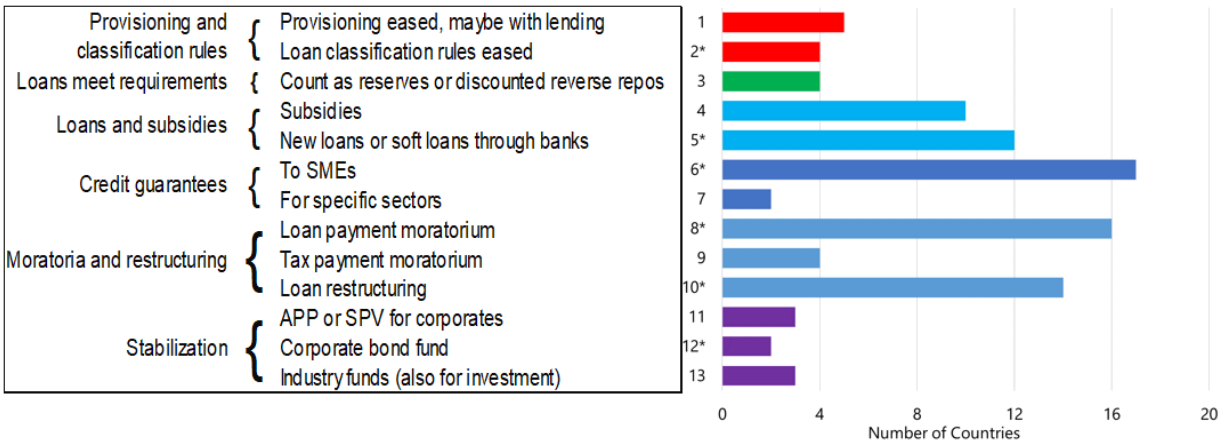
[1] Prepared by Sanaa Nadeem and Dirk Muir.

[2] MSMEs are defined as having annual revenues below 500 (300) million baht or less than 200 (150) employees for manufacturing (services) firms.

[3] It should be noted that the Orbis database may not include sufficient information about MSMEs.

due to limited up-take, the criteria were widened to include firms listed on the Market for Alternative Investments. Many of these schemes have been extended to end-June 2021 as the COVID-19 shock lingered.

Figure 1. Thailand and Its Peers: COVID-19 Response



Source: National authorities and IMF staff calculations.
Note: Categories are numbered; those with an asterisk (*) include Thailand.

4. The Thai approach can be contrasted with other EMs, whose measures could serve as examples for future Thai actions. Out of 31 EMs and peers, there have been a large variety of measures undertaken in response to the pandemic to help firms, especially SMEs (Figure 1).[4] There are:

- *The initial, quickest set of measures that have been more regulatory in nature* (categories 1 to 2 in Figure 1), by easing provisioning or easing rules on loan classifications. As will be discussed below, these measures might be a threat to financial stability during a shock such as the COVID-19 pandemic, as the pandemic's magnitude and length has been surprising over its first year and promises to be just as uncertain going forward.

- *Extra subsidies and measures related to loans* (categories 3 to 7 in Figure 1). Loans have sometimes been made to SMEs directly by government-owned financial institutions, as in China and India. Or there have been soft loans (directed often to SMEs, a major tool in Thailand). To make any sort of lending to SMEs more attractive under the uncertainty of the pandemic, credit guarantees are often provided as an incentive by the authorities, although sometimes the guarantee programs are relatively small to the amount of loans in the market (although Thailand has improved markedly in this regard). Lending to SMEs can also be used in some countries' retail banks to meet their reserve requirements (as in Argentina) or for reverse repurchase agreements (as in China), which makes such lending more attractive.

[4] The sample includes Thailand and 31 additional economies: South Africa, Bangladesh, Cambodia, China, Hong Kong SAR, India, Indonesia, Korea, Malaysia, Philippines, Vietnam, Bulgaria, Croatia, Cyprus, Czech Republic, Hungary, Poland, Romania, Slovakia, Slovenia, Morocco, Pakistan, Tunisia, Turkey, Argentina, Brazil, Colombia, Costa Rica, Dominican Republic, Mexico, and Peru.

- *Payment moratoria* (categories 8 to 10 in Figure 1), often for loans, but sometimes on taxes (as Hungary or Indonesia), or efforts at loan restructuring to ensure firms can survive, but banks can still recoup loans made when their economies were in much better shape – one of the most frequently used measures across countries, including in Thailand.

- *Broader programs pursued by a much smaller set of countries* (categories 11 to 13 in Figure 1). These either help with stabilization, such as public or central bank purchases of corporate bonds (such as Thailand with its Corporate Bond Stabilization Fund), that are broader purchase programs to reduce interest rates in the entire market (Hungary and Poland), or are directed at entire industries, which might also focus on future investment.

5. The impact on the banking sector, which has been in good health, has been limited, though profitability has been strained by higher provisioning and lending standards have tightened. Thai banks have been well capitalized and provisioned, though profitability had been declining, and will be further strained by higher provisioning. Due to the authorities' intervention, bank loan growth has remained relatively steady at 5.1 percent year-over-year by 2020Q4 (compared to the Asian Financial Crisis at-12.1 percent year-over-year and the GFC at 0 percent year-over-year). Gross NPLs have only marginally increased (from 3 percent at December 2019 to 3.1 percent at December 2020), while special mention loans at 6.7 percent of total loans in December 2020 have now begun declining, after having increased from 2.8 percent of total loans in December 2019. This is compared to a peak NPL ratio of 40 percent during the Asian Financial Crisis and around 8 percent post-GFC.

6. As the economy moves into the recovery phase, efforts will need to be made to limit scarring on the corporate sector. There is a risk that as deferral and regulatory measures expire and given the unique nature of the COVID-19 shock, firms' liquidity difficulties could transform into insolvency, particularly those in contact-intensive sectors or with limited buffers or access to finance. Deteriorating asset quality can lead to a weakening in bank balance sheets, and there may be pockets of vulnerability for less regulated nonbank financial institutions and savings cooperatives from which many higher-risk MSMEs borrow. Altogether, higher delinquencies can translate into large losses in output and employment, with attendant social costs. To limit such costs, policies should now focus on continuing liquidity support where needed, helping otherwise viable firms efficiently restructure—thereby flattening the insolvency curve—and allowing unviable firms to exit through efficient formal procedures. This would encourage the reallocation of resources to other sectors of the economy, and thereby raise aggregate productivity and potential growth as the economy adjusts to the post-COVID-19 "new normal."

Strategies to Support Corporate Sector Health Through the Recovery

7. Key principles should guide the eligibility criteria for which firms to assist and the assignment of policies. These include**:**

- *Limiting potential moral hazard*, to ensure firms receiving funds do not misuse them or engage in risky behavior, via setting terms of compliance and a clear exit strategy.

- *Articulating clear eligibility requirements,* which would limit adverse selection and scope for discretion, while preserving fiscal space.

- *Facilitating an efficient reallocation of resources in the economy,* in line with Thailand's goals of moving up the value chain over the medium and raising aggregate productivity as well as enabling firms to adapt to the post-COVID-19 operating environment.

8. Targeted support is preferred to broad support. Although broad-based (and generally liquidity) support is quicker and less administratively burdensome to disburse (and speed was a priority when the shock first hit), as the economy moves to the recovery phase, the focus should shift to better targeting firms to minimize fiscal costs, preserve fiscal space (Diez and others forthcoming, OECD 2020a, 2020b), and limit governance challenges.

9. The type of support should be linked to the nature of the problem firms are facing. The general principles follow those in the literature (see Gourinchas and others 2020, IMF 2020a, and OECD 2020a), namely:

- Firms that were not viable prior to the COVID-19 shock should be encouraged to exit through liquidation.

- Solvent firms that are facing liquidity difficulties due to the pandemic should be provided liquidity assistance, such as through soft loans, expenditure deferrals, or debt moratoria.

- Firms that have become insolvent due to the pandemic, but are expected to recover post-pandemic, can be assisted through loans or equity injections.

- For those firms that cannot be supported through liquidity or solvency support, there needs to be efficient restructuring (to restore viability) or liquidation (where firms should exit) to encourage a reallocation of resources across the economy. To facilitate quick and low-cost restructurings, informal out of court resolution frameworks could be simplified and incentivized.

10. The high prevalence of MSMEs and informality in Thailand inject additional considerations in the overall strategy. The predominant share of MSMEs in the affected sectors, and the high degree of informality in business practices (such as limited recordkeeping), can make ascertaining the true financial position of such firms difficult, as well as open room for the misdirection and misuse of funds. Other considerations include the need to preserve employment for low-skilled labor, the geographic concentration of such firms (e.g. in tourism-dependent areas), and the systemic importance of some larger firms, and the social costs of loss of employment. This is compounded by the prevailing high uncertainty due to the pandemic.

- The eligibility criteria could consider firms that generate high social value through externalities based on their interlinkages with the local economy, particularly employment.

- For firms where information on financial health is limited, the size of support could be gradually extended over the support period, based on the requirement to keep and meet objective markers.

- To maintain institutional independence and credibility, there needs to be a clear assignment of tasks. The schemes will need to coordinate among the different monetary and fiscal authorities (BOT; Ministry of Finance; Ministry of Industry) and institutions (e.g. state owned enterprises, SOES; specialized financial institutions, SFIs; banks) but need to retain independence or proper segregation to ensure their primary mandates are not compromised. For example, the BOT should not finance government spending plans; the SFIs should not be financing SOEs; SOEs should be judged on a commercial basis, not as government job creation schemes.

11. Government equity injections, particularly in conjunction with private participation, can serve as productive way to preserve the overall health of firms without exacerbating leverage. Such measures can help inject equity to viable firms where private investment may be less forthcoming, including due to uncertainty and credit risk, especially for SMEs. Government equity injections could also be junior to other investment, allowing business owners to preserve ownership, with some agreement for a share upside profits in the future (see Bauer and others forthcoming, Diez and others forthcoming). However, in the case of Thailand where SMEs comprise a large share of affected firms, to preserve fiscal space, limit fiscal risk, and ease administrative burden, public-private co-investment schemes could be preferred to support high-potential and potentially strategic firms. Private investors may be better able to assess business profitability and provide oversight than government agencies, while providing managerial upskilling, which could improve SME productivity going forward and reduce the risk of corruption. Finally, regardless of the program design, there may be significant implementation risks given the large degree of informality.

12. The institutional and legal framework needs to be upgraded without delay in view of best practices as well as the particular challenges presented by COVID-19. Thailand has a well-established corporate resolution framework relative to regional peers, particularly for both ex ante and ex post liquidation measures (see Garrido and others 2020). However, the COVID-19 crisis is likely to bring new acute challenges, such as a potential wave of restructurings, which could overwhelm courts, and the large share of distressed MSMEs for whom formal proceedings could be burdensome (IMF 2020a). Therefore,

- Priority areas for reform include both upgrading the resolution system to bring in line with current best practice as well as allow for more streamlined processes that encourage in restructuring instead of liquidation.

- Simplified out-of-court procedures could be developed to expedite efficient restructuring and resolution for smaller, more informal firms (Diez and others forthcoming). Given the number of creditors and value of claims for such firms are likely to be small, these procedures can provide a simple mapping of firms' underlying problems with solutions for quicker resolution. Judicial resources can then be prioritized for hybrid solutions (that have limited judicial involvement) and conventional bankruptcy proceedings.

13. Exit from these measures should be data dependent. This would both help avoid a premature withdrawal of stimulus or discourage moral hazard, both of which would lower firm productivity; it would also help preserve BOT independence and enhance the effectiveness of the monetary transmission mechanism. The decision to taper support should be based on evolving macroeconomic conditions and the performance of firms relative to preset reporting and

compliance standards. These could include monitoring excessive spreads of banks' SME lending versus other corporate lending. These should be transparently recorded both at the firm level as well as monitoring fiscal risks to ensure the overall effectiveness of funds.

14. Banks and other financial institutions should be prepared for a downside risk scenario. Supervisors should encourage banks and other financial institutions to prudently provision in case of a downside scenario that further deteriorates asset quality. At the same time, improving timely information gathering to better assess credit risk to MSMEs. As the recovery takes hold, banks should proceed to rebuild capital and liquidity buffers, while ensuring capacity to extend credit. Efforts should also be made to monitor other financial institutions such as savings cooperatives, which are currently outside of the BOT regulatory perimeter.

15. Measures should be also undertaken to facilitate the reallocation of resources to other sectors. The reallocation of capital across sectors can be costly and take time. In addition, even existing firms will need to adjust to the post-COVID-19 new normal, with its altered demand patterns. Support measures should be designed to both reduce the costs of resource allocation, as well as incentivize firms to adjust to a new operating environment productively. Measures could include a strengthening of income assistance to workers now unemployed because of bankrupt firms until they find new employment, increased training and upskilling, the adoption of digital infrastructure (including in payments and service delivery) and providing support to comply with costly health regulations related to the pandemic, related to social distancing or providing certain medical supplies. Continuation of external support can be made conditional on the successful adoption of such measures. Some measures could also be facilitated by public-private partnerships, instead of solely relying on government funding.

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INTERNATIONAL MONETARY FUND

THAILAND

STAFF REPORT FOR THE 2021 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

April 26, 2021

Prepared By

Asia and Pacific Department

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FUND RELATIONS

(As of March 31, 2021)

Membership Status: Joined 05/03/1949; Article VIII.

Article VIII Status: Thailand has accepted the obligations of Article VIII, Sections 2, 3, and 4, and maintains an exchange system free of multiple currency practices and restrictions on the making of payments and transfers for current international transactions.

General Resources Account:

	SDR Million	Percent Quota
Quota	3,211.90	100.00
Fund holdings of currency	2,335.19	72.70
Reserve position in Fund	876.72	27.30
Lending to the Fund		
New Arrangements to Borrow	9.67	

SDR Department:

	SDR Million	Percent Allocation
Net cumulative allocation	970.27	100.00
Holdings	990.40	102.08

Outstanding Purchases and Loans: None

Latest Financial Arrangements:

In millions of SDR				
Type	**Approval Date**	**Expiration Date**	**Amount Approved**	**Amount Drawn**
Stand-by	8/20/97	6/19/00	2,900.00	2,500.00
Stand-by	6/14/85	12/31/86	400.00	260.00
Stand-by	11/17/82	12/31/83	271.50	271.50

Projected Obligations to Fund
(SDR million; based on existing use of resources and present holdings of SDRs):

	2021	2022	2023	2024	2025
Principal					
Charges/interest	0.01	0.01	0.01	0.01	0.01
Total	0.01	0.01	0.01	0.01	0.01

Exchange Rate Arrangement:

The de jure and de facto exchange rate arrangements are classified as floating. Under the inflation-targeting monetary policy framework, the value of the baht is allowed to be determined by market forces, reflecting demand and supply in the foreign exchange market. In the case that the resulting movements in Thai baht (THB) are deemed excessive and unjustified by fundamentals, foreign exchange intervention can be undertaken.

During 2020, the REER depreciated by 2.6 percent, while the NEER depreciated by 0.47 percent. This reflects capital outflows observed early in 2020 due to COVID-19 induced risk-off sentiment and the collapse in tourism receipts.

Last Article IV Consultation:

Thailand is on the standard 12-month Article IV consultation cycle. The previous Article IV consultation was concluded on September 30, 2019. Copy of the Staff Report could be downloaded from this link.

FSAP Participation

The Financial Sector Assessment Program (FSAP) missions took place in November 2018 and February 2019. The main findings are presented in the published Financial System Stability Assessment (IMF Country Report No. 19/308).

Recent Technical Assistance:

FAD: A mission in November 2019 advised the government on developing a strategy for improving the tax compliance of digital platform companies in light of the authorities' draft legislation for taxing certain types of cross-border e-commerce transactions.

LEG: A mission in March 2019 reviewed the existing income tax law, comprising Title 2 of the revenue code and relevant subsidiary legislation, and suggested a need of simplification and modernization to improve its effectiveness to align it with international best practices. A mission in April 2019 conducted a diagnostic evaluation of the capacity development needs for strengthening the anti-money laundering and combating the financing of terrorism (AML/CFT) regime of the country. A mission in September 2019 discussed amendments that are required to make Thailand's AML preventative measures regulations compliant with the international standards.

Resident Representative: None

RELATIONS WITH OTHER INTERNATIONAL FINANCIAL INSTITUTIONS

World Bank: https://www.worldbank.org/en/country/thailand

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

STATISTICAL ISSUES

(As of April 2, 2021)

I. Assessment of Data Adequacy for Surveillance
General: Data provision is broadly adequate for surveillance. The authorities have continued to improve the quality and coverage of data. The dissemination of additional data may enhance the basis for macroeconomic analysis.
National accounts: The Office of the National Economic and Social Development Council (NESDC) compiles annual and quarterly GDP estimates using both the production and expenditure approaches. The annual GDP volume measures are derived at previous year's prices and as chain-linked indices with 2002 as the reference year. In the 2019 release, the NESDC revised the GDP series back to 2014. The NESDC introduced new quarterly GDP current price and chain-linked volume estimates in May 2015. **Price statistics**: The Bureau of Trade and Economic Indexes (BTEI) compiles and disseminates a monthly consumer price index with weights based on expenditure data collected from households during the 2015 Socio-Economic Survey since January 2017. Index coverage is restricted to middle-income urban households. In addition to headline CPI, the BTEI publishes aggregate indexes for the low-income and rural populations. The BTEI also publishes monthly producer price index with base year 2010. The Bank of Thailand disseminates a RPPI covering metropolitan Bangkok and STA has provided technical assistance towards broadening coverage to include other regions.
Government finance statistics: The authorities provide data to the Fund, consistent with the *Government Finance Statistics Manual*, 2014 (*GFSM 2014*), for publication in the *Government Finance Statistics Yearbook* and the *International Finance Statistics,* as well as for surveillance purposes. General government fiscal data are reported to the Fund annually. The authorities also publish monthly and quarterly data for key general government GFS-based numbers on their website. In addition, the authorities compile and publish aggregated *GFSM 2014*-based data for selected nonfinancial state-owned enterprises (SOEs), although with substantial delays. The authorities also publish public sector debt data in their website, including debt of nonfinancial SOEs and Specialized Financial Institutions.
Monetary statistics: The authorities submit the Standardized Reporting Forms (SRFs) for monetary statistics on a timely basis for publication in *IFS*. The reported SRFs include the central bank, other depository corporations, and other financial corporations (OFCs). **Financial Soundness Indicators**: The authorities report 11 of the 12 core financial soundness indicators (FSIs) and 7 of the 13 encouraged FSIs for deposit takers, one FSI for OFCs, one for households, and 3 FSIs for real estate markets—on a quarterly basis—for posting on the IMF's FSI website with about one quarter lag. **Financial Access Survey:** The authorities also report data on several series and indicators to the Financial Access Survey (FAS), including mobile money and the two indicators (commercial bank branches per 100,000 adults and ATMs per 100,000 adults) adopted by the UN to monitor Target 8.10 of the Sustainable Development Goals (SDGs).
External sector statistics: The Bank of Thailand (BOT) compiles and disseminates balance of payments (BOP) and international investment position (IIP) statistics with quarterly frequency following the sixth edition of the *Balance of Payments and International Investment Position Manual* (*BPM6*). The quarterly BOP and IIP are available for 2020Q4 (at the time of assessment). The historical data on *BPM6* based BOP and IIP goes back to 2005.The methodology for compiling balance of payments data remains adequate. Further improvements are expected to enhance the data coverage and accuracy of BOP and IIP statistics, particularly in areas where new concepts, such as digital trade have been introduced Data on external debt and debt service have significantly improved since the introduction of a quarterly survey of private nonbank external debt. The BOT participates in the coordinated direct and portfolio investment surveys of STA and regularly reports International Reserves and Foreign Currency Liquidity Data Template. The November 2019 TA found that the BOT has the capacity to develop new data sources to counteract the impact from the financial liberalization program initiated in 2017, and to develop new data sources and methods to take into account effects of technological changes and globalization on economic activities. Nevertheless, BOT's management's support is needed to successfully conduct these reforms, including by allocating sufficient resources for the developmental work and facilitating the inter-agency cooperation on a more structured basis. There is a need to corroborate the methodology and data released with the Ministry of Tourism and Sports (for tourism, which is one of the most important sectors of activity); improve collaboration with the NESDC (further improvement of the integrated business register supporting harmonized current and financial accounts); and liaise closely with Customs Department to gain knowledge on free zone and ecommerce activities.

II. Data Standards and Quality	
Subscriber to the Special Data Dissemination Standard (SDDS) since August 9, 1996.	Data ROSC published in April 2006.

Thailand: Table of Common Indicators Required for Surveillance

As of April 14, 2021

	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Frequency of Publication[6]
Exchange Rates	4/14/2021	4/14/2021	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	4/14/2021	4/14/2021	W	W	W
Reserve/Base Money	3/2021	4/12/2021	M	M	M
Broad Money	2/2021	4/8/2021	M	M	M
Central Bank Balance Sheet	3/2021	4/12/2021	M	M	M
Consolidated Balance Sheet of the Banking System	2/2021	4/8/2021	M	M	M
Interest Rates[2]	4/14/2021	4/14/2021	D	D	D
Consumer Price Index	2/2021	3/8/2021	M	M	M
Revenue, Expenditure, Balance and Composition of Financing[3]—General Government[4]	2020	2/2021	A	A	A
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	9/2020	2/2021	M	M	M
Stocks of Central Government and Central Government-Guaranteed Debt[5]	9/2020	2/2021	M	M	M
External Current Account Balance	2/2021	3/2021	M	M	M
Exports and Imports of Goods and Services	2/2021	3/2021	M	M	M
GDP/GNP	2020: Q4	2/2021	Q	Q	Q
Gross External Debt	2020 Q4	3/2021	Q	Q	Q
International Investment Position	2020: Q4	3/2021	Q	Q	Q

[1] Includes reserve assets pledged or otherwise encumbered, as well as net derivative positions.
[2] Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[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.
[6] Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A); Irregular (I); Not Available (NA).

INTERNATIONAL MONETARY FUND

THAILAND

STAFF REPORT FOR THE 2021 ARTICLE IV CONSULTATION—SUPPLEMENTARY INFORMATION

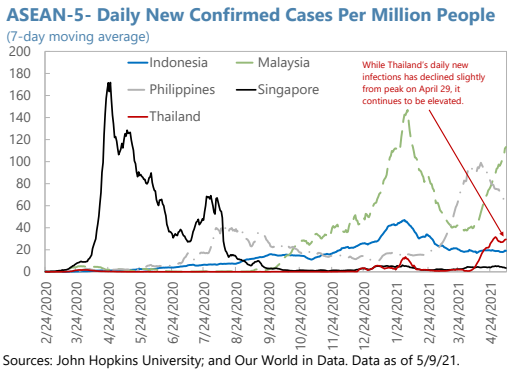
May 10, 2021

Prepared By | Asia and Pacific Department

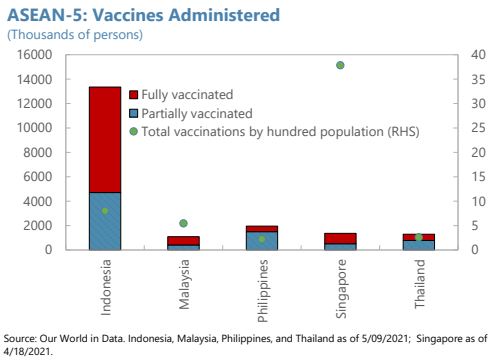
This staff supplement provides the Board with updates on Thailand's COVID-19 third wave and the vaccination plans of the authorities since the staff report was issued on April 26, 2021 (SM/21/59). The main thrust of the staff appraisal remains valid.

1. The daily caseload of new COVID-19 infections remains elevated while the pace of vaccination is slow. New daily infections peaked at about 2,800 cases on April 24 before moderating to just about 2,000 cases per day, on average, in early May. Available information suggests that about half of the new infections are related to the highly transmissible B.1.1.7 COVID-19 new variant, reinforcing the uncertainties about the path of the pandemic. The government plans to diversify its vaccine access and procure more vaccines from several producers, including Pfizer, Moderna, and Sputnik V. Three vaccine brands are currently registered for emergency use in Thailand – AstraZeneca, Sinovac, and Johnson and Johnson – while the Moderna, Covaxin, and Sputnik V brands are awaiting registration. The government's updated goal is to inoculate about 50 million people (70 percent of the population) by end-2021, supported by the private sector. However, actual vaccination is proceeding slowly with only about 1.8 million doses administered so far.

ASEAN 5: COVID 19 Daily New Confirmed Cases and Vaccinations



Sources: John Hopkins University; and Our World in Data. Data as of 5/9/21.



Source: Our World in Data. Indonesia, Malaysia, Philippines, and Thailand as of 5/09/2021; Singapore as of 4/18/2021.

2. Tightened containment measures in response to the COVID-19 third wave could challenge the government's reopening plans. Effective April 26, the government implemented targeted measures by closing parks, gyms, cinemas, and day care centers in its capital Bangkok—the epicenter of the latest wave of infections. The authorities have also introduced a fine of up to 20,000 baht ($635) for not wearing masks in public, imposed partial travel restrictions, and increased the mandatory quarantine period for all arrivals to two weeks effective May 1, which marked a setback to previous plans of gradually reopening its borders to foreign visitors.

3. Market reactions remain relatively mild. Yields on government bonds were largely unchanged since the surge in the of daily new infections, while equity prices, though volatile, did not record noticeable losses through early May. The Thai baht initially depreciated by about ½ percent, and subsequently strengthened through early May, largely offsetting its initial losses. On May 5, the Bank of Thailand 's Monetary Policy Committee (MPC) voted unanimously to maintain the policy rate at 0.5 percent citing the need to preserve the limited policy space and to act at the appropriate and most effective timing.

Statement by Ms. Alisara Mahasandana, Executive Director for Thailand and Mr. Krist Dacharux, Advisor to Executive Director
May 17, 2021

1. On behalf of the Thai authorities, we thank staff for the constructive engagement and welcome staff's recognition of the authorities' timely pandemic policy response. Our authorities broadly share staff's assessment on the outlook and are mindful of the significant challenges in the periods ahead. They recognize the distributional impact of the pandemic and remain committed to implementing multi-pronged and targeted policies, primarily led by fiscal support, to address these challenges. Many of staff's recommendations are in line with the authorities' current policy priorities.

Recent Economic Development and Outlook

2. **Thailand entered the pandemic with strong fiscal and external positions as well as a resilient banking sector, thanks to years of prudent macro-management and reforms**. Nonetheless, the pandemic took a heavy toll on the Thai economy given its high dependence on tourism, with foreign tourism accounting for 11-12 percent of GDP and tourism-related businesses accounting for 20 percent of employment. As such, the authorities have responded nimbly and decisively to the crisis and provided needed support for the vulnerable groups through monetary, financial, and fiscal policies. The economy picked up in the second half of2020 on the back of improvement in economic activities and the government stimulus.

3. **After the second wave of the outbreak was brought under control, the economy gradually improved in the first quarter of 2021**. However, the recovery path has been disrupted by the third wave of the outbreak in April 2021, which affected domestic spending and the recovery of the tourism sector as the country's reopening is further delayed. The authorities therefore assessed that the Thai economy would expand at a much lower rate in 2021. In the midst of the third wave, the GDP growth projection for 2021 was marked down primarily to 2.0 percent, depending upon the pace of vaccination rollout, and is expected to recover in 2022. Nonetheless, the outlook is uncertain and is subject to significant risks including (i) the distribution and efficacy of COVID-19 vaccination; (ii) uneven recovery across economic sectors resulting in more vulnerable labor markets which would affect household income and private consumption; and (iii) more fragile financial positions, particularly of small and medium-sized enterprises (SMEs) and tourism businesses that have lower debt servicing capability, as well as households that have lower savings-to-income ratio.

Fiscal policy

4. **The authorities highlight the role of fiscal policy at the center stage of pandemic responses and that the current fiscal space remains adequate to bolster the economy's recovery from the pandemic.** The 1-Trillion-Baht loan decree introduced in May 2020 has enabled the government to fund public health spending, subsidize living costs for households, and provide life-line liquidity and guarantees for businesses to support employment. The

increased spending is undertaken within a sound medium-term fiscal framework, which anchors the government's commitment to maintain post-COVID fiscal discipline.

5. **The authorities take note of staff's analysis of the distributional impact of the pandemic**. Recognizing the apparent divergent effects across sectors of the economy, the authoritieshave adopted tailored approaches at different stages of the pandemic, from blanket to more targeted measures, with special focus on SMEs, which cover around 85 percent of employment, and the vulnerable population. During the first wave of the outbreak in March 2020, the support measures were targeted at 15.3 million self-employed workers, 7.6 million farmers, 6.7 million vulnerable people (disabled, infants, and elderly), over 13.9 million people who do not meet the requirements of the social security system, and 1.02 million statewelfare cardholders. The most recent package launched in early May 2021 will cover approximately 9.3 million workers in the social security system and approximately 33.5 million qualified applicants.

6. **With Thailand's robust digital payment infrastructure, including an effective electronic retail payment system, and high level of financial inclusion, the authorities are able to deliver timely and targeted support.** Various subsidy programs which are disbursed via electronic wallets are designed to help vulnerable households meet ordinary living expenses under income shocks, while also targeting those spending on local businesses and small vendors to maximize the multiplier effect. Over the course of the pandemic, the government has been able to gather more granular data for monitoring the effectiveness of the support program and for triggering of any necessary further enhancement of the programs' design, based on beneficiaries' socio-economic characteristics and location.

Monetary policy

7. **The authorities view that the current monetary policy stance remains appropriately accommodative and the priority at this juncture is to channel the abundant liquidity to affected businesses to prevent liquidity shortage from turning into insolvency.** In their view, interest rate is a blunt instrument and the deployment of the limited policy space should be preserved for the appropriate and most effective timing. As additional monetary easing may not address the fundamental issues of heightened credit risks and impaired credit flows, the authorities place more focus on financial and credit assistance measures such as credit guarantee schemes that mitigate credit risks.

8. **The authorities have implemented measures to maintain adequate supply of credit to severely affected sectors and address market functioning since the onset of the COVID-19 pandemic.** Examples include the Soft Loan Scheme providing partial credit guarantee to facilitate the channeling of low-cost credits to SMEs. The authorities also provided substantial liquidity to help alleviate the impact of the sharp tightening of financial conditions and market dysfunction in the domestic bond market brought on by the pandemic related extreme uncertainties. Provision of liquidity backstop to mutual funds and investment-grade corporate bond issuers through special facilities, namely the Mutual Fund

Liquidity Facility (MFLF) and the Corporate Bond Stabilization Fund (BSF), have supported market functioning, safeguarded market stability, and shored up confidence in businesses' ability to mobilize funding.

9. **While the authorities see merit in considering unconventional monetary policy (UMP) tools deployed by advanced economies (AEs) such as asset purchase programs or yield curve control, they cautioned that such UMP tools may not be as effective in Thailand.** As Thailand's financial system is largely bank-based, the use of such UMP tools to target the longer-end of the yield curve would have limited impact on the monetary stimulus as it would likely benefit only a handful of larger corporates, while it may also lead to unintended consequences. That said, the authorities reiterate their stance that all reasonable monetary policy options are and continue to be in the arsenal. At the current juncture, however, the authorities focus on various monetary and financial measures to ensure that the banking system can continue to conduct its intermediation role effectively with ample liquidity.

Foreign Exchange Policy

10. **The authorities remain committed to exchange rate flexibility with foreign exchange operations limited to curbing excessive exchange rate volatility and disorderly market conditions.** The Thai baht exchange rate has largely been market-determined as evidenced in the relatively wide fluctuations both in the bilateral rates and in effective terms following shifts in global sentiments[1]. In some circumstances, however, the Thai baht is particularly prone to excessive movements due to some idiosyncratic features of the Thai foreign exchange market, such as high sensitivity to gold trading flows, perceived status as an emerging market (EM) safe-haven, and the dominance of non-residents (NR) activities. In such cases, the BOT needs to address disorderly market conditions and prevent the "snowballing effects" that cause exchange rate movements to be a shock amplifier instead of a shock absorber.

11. **The BOT has embarked on a plan to accelerate the development of the new FX ecosystem.** The policy aims at deepening the domestic market and improving the resilience of market participants against volatile exchange rates and capital flows, while addressing structural impediments in the FX market in a more sustainable manner. Facilitating more balanced capital flows and promoting broader and more cost-effective access to FX hedging are among key imperatives towards building resilience. To bring about a more balanced capital movement against the backdrop of persistent current account surpluses, high portfolio inflows, and Thai investors' home-bias, the BOT has liberalized capital accounts further to promote the private sector outflows, particularly portfolio investment.

[1] Over the past 7 months (October 2020-April 2021), the Thai baht fluctuated around 10% against the US dollar, and around 6% in nominal effective exchange rate (NEER). In Q4, 2020 the Thai baht appreciated 5.8% against the US dollar and the NEER strengthened 2.6%, following risk-on sentiment from the US presidential election result. Nevertheless, since the beginning of 2021, the Thai baht has reversed its gains and depreciated around 4.1%, weakening by almost 3% in terms of NEER, as a result of the better US economic outlook and the resurgence of pandemic in Thailand.

12. **As part of the FX ecosystem policy package, the BOT is allowing greater flexibility for non-resident companies to conduct foreign exchange transactions against the Thai baht with domestic financial institutions under the Non-Resident Qualified Company (NRQC) Scheme.** Under this program, non-financial companies having trade and direct investment in Thailand will be able to manage Thai baht liquidity more flexibly without being subject to the daily outstanding limit imposed on the Non-resident Baht Accounts (NRBA). While the adjustment of the longstanding daily limit of the NBRA/NRBS from 300 million baht to 200 million baht in 2019 has been regarded by staff as a capital flow management measure, the authorities view that such adjustment does not limit the quantity of inflows to Thai financial markets or prevent non-residents from investing in domestic securities. The measure remains necessary to curb non-residents' short-term speculative inflows that park idly in the Thai Baht accounts and are not supported by underlyingeconomic and investment activities.

External Balance Assessment (EBA)

13. **Our authorities broadly share staff's assessment regarding a narrowing current account (CA) gap as the CA surplus has been trending downward due to the drastic impact of the pandemic on Thailand's tourism revenue.** The authorities also agree with the point highlighted by staff on the persistent savings-investment imbalance, which is believed to be the core issue and part of the structural factors driving Thailand's CA imbalance. In this regard, they call for staff's nuanced understanding of the limitations of the external balance assessments both in terms of the model's explanatory power and the interpretation of model results, especially those on exchange rate assessment that would suggest a large adjustment burden on the exchange rate.

14. **Against the backdrop of pandemic-led structural shifts in the global economy**, the authorities encourage the Fund to revisit the EBA model's parameters and global imbalance assessments in the planned review next year so that they can best reflect each country's external position with the most fitting policy recommendations to facilitate medium-term adjustments. To this end, the authorities also reiterate the importance of clear communication on the EBA limitations and policy advice related to the needed structural reforms to avoid any misunderstanding as well as unintended implications on the exchange rate and FX policy.

Financial Policies

15. **Since the onset of the pandemic, our authorities have been proactive in implementing a policy package to mitigate the impact of the COVID-19 outbreak on households and businesses.** During March to April 2020, the authorities swiftly announced measures to alleviate liquidity stress and stabilize the financial market as well as providing liquidity to the government bond market through a bond purchase program. Financial institutions' contribution to the Financial Institutions Development Fund (FIDF) was halved to allow such cost saving to be passed on to businesses and households through lower loan

rates and other forms of financial assistance. Subsequently, additional relief measures were targeted to support SMEs, which are the backbone of the Thai economy and a primary source of employment, to have sufficient funding and help retain their workforce. The policy suite included a number of measures, such as a loan payment holiday and soft loans to provide liquidity for SMEs with a credit line not exceeding 500 million baht. Financial assistance provided by financial institutions covered household and business loans totaling 7.2 trillion baht and supported up to 13 million debtors, at its peak in July 2020. The BOT has encouraged banks to continue their support for selected groups of SME debtors with high cash flow uncertainties through repayment holiday and interest relief until June 30, 2021.

16. **As the prolonged and increased level of uncertainties further impaired financial access of affected businesses, the authorities have rolled out Financial Rehabilitation measures in April 2021**. Such measures include a new special loan facility for SMEs and a debt restructuring program through Asset Warehousing with Buy-Back options. The primary objectives of these measures are to support the continuity of viable businesses' operations, maintain employment, as well as to recover and transform themselves for the post-pandemic era. The adoption of these measures is guided by three key principles: (i) appropriate under the current heightened risk outlook, (ii) flexible to withstand the rapidly changing environment, and (iii) inclusive in addressing different needs of different sectors. The terms and conditions of the new special loan program are refined to expand the coverage and better suit the needs of businesses, while compensating creditors for the heightened credit risk. The Asset Warehousing scheme allows business debtors to transfer their collateral assets for debt settlement and maintain the first right to buy back their assets later when conditions improve. This also includes an option to rent the assets for business operations, which should allow sufficient time for debtors and creditors to assess business viability post-COVID.

17. **For households, aside from the debt clinic which has been in place since 2017, the authorities have stepped up the effort in facilitating various credit assistance, debt relief and debt restructuring measures, tailored to the debt repayment capability of each segment**. In March 2020, credit assistance measures of various forms were rolled out to assist households,including a moratorium on repayment of principal and interest for different types of loansand lower minimum repayment rates on credit card and revolving loans. Later in 2020, interest rate ceilings on credit card and personal loans were reduced. Starting in September 2020, the Debt Consolidation Program allows borrowers who have good debt-servicing ability for housing loans to convert unsecured loans to secured loans by using houses as collateral. Given that 40 percent of household debt in Thailand stems from credit cards and personal loan debt, the authorities organized the Credit Card and Personal Loan's Debt Mediation Fair during February-April 2021. This is to help creditors and debtors in resolving the debt issues in a quick and fair manner, which has resulted in a decrease in number ofcourt cases and lower operational costs for the overall financial system.

18. **To facilitate out-of-court debt resolution, the authorities have also worked to enhance the mediation process of financial disputes for distressed borrowers and SMEs**.

A standard ofpractice for settling disputes was developed such as resolving defaults on interest payments and stipulating a suitable loan repayment period to align with debtors' financial status. Three Memorandum of Understandings (MOUs) regarding the laws, regulations and practices on mediation and collaboration to resolve financial disputes were signed between the BOT and three major legal institutions namely the Ministry of Justice, the Court of Justice and the Office of the Attorney General. Going forward, the authorities will continue to undertake intensive collaboration with key authorities and further improve the financial infrastructure and ecosystem through legal and financial means, so as to permanently foster a "Mediation Culture" in Thailand.

19. **The Thai banking system remained resilient with high levels of capital, loan loss provisions and liquidity to support economic recovery from the COVID-19 pandemic.** The strong buffers, and prudent underwriting standards over the years have allowed banks to play the critical intermediary role in mobilizing financial assistance to businesses and households during this trying time. Nonetheless, the authorities remain vigilant in monitoring the health of financial institutions with stringent rules in order to detect early signs of balance sheet deterioration.

Vaccine Policy

20. **While macroeconomic policies are working in full force to support the economic recovery, the vaccine policy, vaccination roll-out and the public cooperation remain key policy priorities.** The domestic vaccination roadmap provides necessary guidance for the government's vaccine access and distribution in order to achieve herd immunity against COVID-19. On vaccine access, the authorities have contracted the vaccine procurement with vaccine manufacturers, one of which includes licensing and technological transfers for the local production that is expected to start in June 2021. Negotiations with otherpharmaceutical companies are ongoing to ensure sufficient vaccine supply and ability to control virus variants. Meanwhile, the vaccine distribution plan has prioritized at-risk groups of people, including healthcare workers, population in high-risk areas, population aged over 60, and those with underlying diseases to be fully vaccinated by July 2021. The next phase that will start in August will cover the rest of the population. The government expects to inoculate 100 million doses covering approximately 70 percent of the Thai population by the end of 2021.

Medium to Long-term Structural Policy

21. **The authorities agree with staff's view on the need to advance structural reforms to steer the economy towards a sustainable and green recovery in the medium to long-term.** The authorities aim to facilitate efficient resource allocation to viable sectors post-COVID, enhance potential growth and support transformation towards a high-value and eco-friendly economy. In this regard, there are four key priority areas in the development strategyincluding (i) innovative- and knowledge-based economy; (ii) a high-opportunity society for all people and geographical areas; (iii) an eco-friendly economy and a sustainable

development strategy to support risk mitigation and adaptation to climate change; and (iv) a highly competent workforce and an efficient public sector as key enablers for the country's competitiveness.

22. **The government has launched a Bio-Circular-Green Economy (BCG) model as part of its determination to transform Thailand to a more innovative and sustainable economy**. This initiative aims to ensure the sustainable use of resources, reduce waste and emissions, and improve the environment and quality of life. Four sectors under focus include food and agriculture; medical and wellness; bioenergy, biomaterial and biochemical; and tourism and the creative economy. The government has also integrated a climate strategy and carbon-neutrality objectives into the Medium-Term National Development Plan. The strategy encompasses efforts to increase the share of clean and alternative energy, incentivize manufacturers to transition to lower-carbon fuels and engines, as well as promote environmentally conscious consumption.

23. **The pandemic presents an opportunity for the authorities to reshape the tourism industry, by transforming towards high-value markets post-pandemic**. The authorities aim to promote Thailand as a "preferred destination" of international visitors by creating valuable and memorable experiences to quality tourists, while placing greater focus on sustainability and management of the natural resources. There are also great potentials in the development of specific tourism sectors such as health and wellness, culture and heritage, as well as the natural environment.

24. **The authorities are stepping up efforts in building an inclusive society for Thais, bothin terms of income and well-being**. Key policies include closing gaps between large enterprises and SMEs by promoting fair competition, reducing regional economic disparities, improving urban-rural connection through infrastructure upgrades, enhancing social mobility and narrowing income and wealth inequalities by utilizing the welfare database for a better targeted and tailor-made assistance package for the poor. These efforts also include expanding access to digital technology to minimize digital divide, enhancing educational opportunity for the poor beyond compulsory education, facilitating job creation and labor reallocation, and finetuning the social protection system to support the changing nature of work.