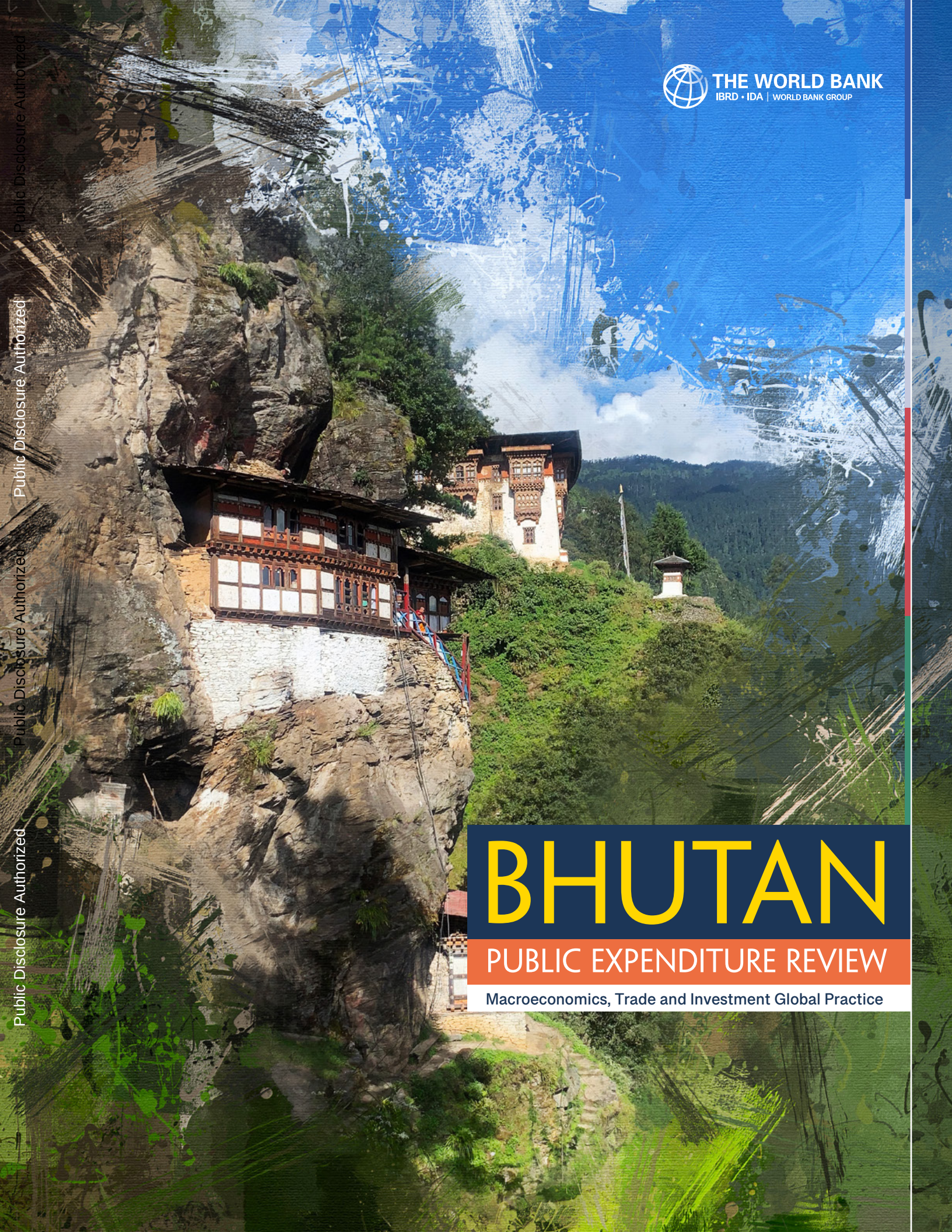

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PUBLIC EXPENDITURE REVIEW

Macroeconomics, Trade and Investment Global Practice

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Abbreviations

AGM	Annual General Meeting
APC	Annual Performance Compact
BBP	Build Bhutan Project
BDBL	Bhutan Development Bank Limited
BESF	Bhutan Economic Stabilization Fund
BETA	BIT Estimated Tax App
BIRMS	Bhutan Integrated Revenue Management System
BIT	Business Income Tax
BITS	Bhutan Integrated Taxation System
BOBL	Bank of Bhutan Limited
BPCL	Bhutan Power Corporation Limited
BST	Bhutan Sales Tax
CD	Customs Duty
CDCL	Construction Development Corporation Limited
CEO	Chief Executive Officer
CG	Corporate Governance
CGCSRC	Corporate Governance and Corporate Social Responsibility Code
CIT	Corporate Income Tax
CPIA	Country Policy and Institutional Assessment
CRA	Corporate Regulatory Authority
CSI	Cottage & Small Industries
CY	Calendar Year
DACL	Druk Air Corporation Ltd
DCCL	Dungsam Cement Corporation Ltd
DEA	Data Envelopment Analysis
DGPC	Druk Green Power Corporation
DGRK	Druk Gyalpo's Relief Kidu
DHI	Druk Holding and Investment
DRC	Department of Revenue and Customs
DSA	Debt Sustainability Analysis
ECP	Economic Contingency Plan
FI	Fiscal Incentives
FRF	Fiscal Reaction Function
FSA	Fiscal Sustainability Analysis
FTA	Free Trade Agreement
FY	Fiscal Year
FYP	Five Year Plan
GDP	Gross Domestic Product
GNH	Gross National Happiness
GNI	Gross National Income
GRPB	Gender responsive Planning and Budgeting
GST	Goods and Services Tax
HCI	Human Capital Index
ICGD	Investment and Corporate Governance Division
ICT	Information and Communication Technology
IMF	International Monetary Fund
LAYS	Learning Adjusted Years of Schooling
LDC	Least Developed Country
LTU	Large Taxpayer Unit
MTMF	Medium-Term Macroeconomic Framework
NCGS	National Credit Guarantee Scheme
NCSIDBL	National Cottage and Small Industries Development Bank Limited
NCWC	National Commission for Women and Children
NFSR	National Food Security Reserve
NPL	Non-Performing Loan
NPPF	National Pension and Provident Fund Limited
NRF	National Resilience Fund
ODA	Overseas Development Assistance
OECD	Organization for Economic Cooperation and Development
PBVP	Performance Based Variable Payout
PEE	Public Environmental Expenditure
PEER	Public Environmental Expenditure Review
PFA	Public Finance Act
PIM	Public Investment Management
PIT	Personal Income Tax
PMU	Project Management Unit
POE	Point of Entry
POS	Point of Sale
PPP	Purchasing Power Parity
PT	Property Taxes
QPO	Queen's Project Office
RAA	Royal Audit Authority
RAMIS	Revenue Management and Information System
RMA	Royal Monetary Authority
ROA	Return on Assets
RSEB	Royal Stock Exchange of Bhutan
SDF	Sustainable Development Fee
SE	State Enterprise
SE	State Enterprises
TIN	Taxpayer Identification Number
TVET	Technical and Vocational Education and Training
WDI	World Development Indicators
WGI	World Governance Indicators

Acknowledgement

The report was prepared by a team led by Nazmus Sadat Khan (TTL and Economist, ESAC2), Melanie Simone Trost (TTL and Economist, ESAC2), and Yutaka Yoshino (TTL, Economic Adviser, ECAVP). The team also included Michel Ragnvald Mallberg (Senior Public Sector Specialist, ESAC2), Daniel Alvarez (Senior Public Sector Specialist, ESAC2), Massimo Mastruzzi (Senior Economist, EMFTX), Rajiv Kumar (Senior Economist, EMFTX), Rangeet Ghosh (Senior Economist, ESAC2), Alvin Etang Ndip (Senior Economist, ESAPV), A.N.M. Mustafizur Rahman (Senior Procurement Specialist, ESARU), Elise Wendlassida Miningou (Economist, GGGPE), Juan Pablo Paladino (Consultant), Matias Hervera (Consultant), Supriyo De (Consultant), Martin Brownbridge (consultant), Tore Dubbert (Consultant), Kok Zi Cheng (Consultant), and Sharmin Akhter Jahan (Consultant). Hoon Sahib Soh (Practice Manager, ESAC2) provided overall guidance under the leadership of Abdoulaye Seck (Country Director, Bangladesh and Bhutan) and Mathew Verghis (Regional Director, EFI).

The table below presents the list of major input providers for each chapter:

Chapters	Lead	Other major contributors
Chapter 1: Macro-Fiscal Context	Nazmus Sadat Khan and Melanie Simone Trost	Juan Pablo Paladino, Matias Hervera, Rangeet Ghosh, Tore Dubbert
Chapter 2: Enhancing Domestic Resource Mobilization	Nazmus Sadat Khan, Daniel Alvarez, and Rajiv Kumar	Melanie Simone Trost, Supriyo De, Rangeet Ghosh
Chapter 3: Striving for Productive and Efficient Public Expenditure	Nazmus Sadat Khan	Melanie Simone Trost, Massimo Mastruzzi, Elise Wendlassida Miningou, Supriyo De, Alvin Etang Ndip
Chapter 4: Turning Bhutan's State Enterprises into a Development Asset	Michel Ragnvald Mallberg	Melanie Simone Trost and Martin Brownbridge

Executive Summary

Despite Bhutan's distinctive geographical and economic challenges, the country has maintained a relatively high average real GDP growth rate of 8.8 percent over FY00/01-FY09/10, which is greater than the average of South Asian countries as well as low and middle-income economies (Figure E1a). Bhutan's mountainous topography and dense network of rivers offer vast hydropower potential, which the country has been harnessing since the mid-1980s with the commissioning of the Chhukha Hydropower Project in 1986 (Figure E1b). However, due to a slower rate of growth of hydropower capacity, real GDP growth in Bhutan declined over the last decade, averaging only 3.5 percent, which was lower than the growth rates of regional peers and middle-income economies (Figure E1a).

Figure E1a: **Real GDP growth rate**

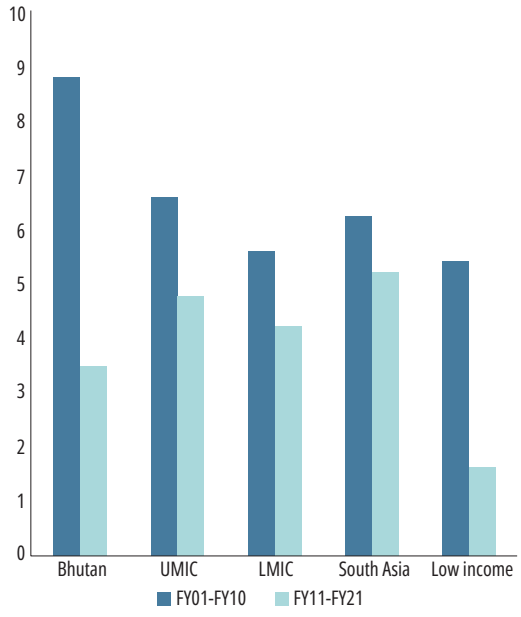
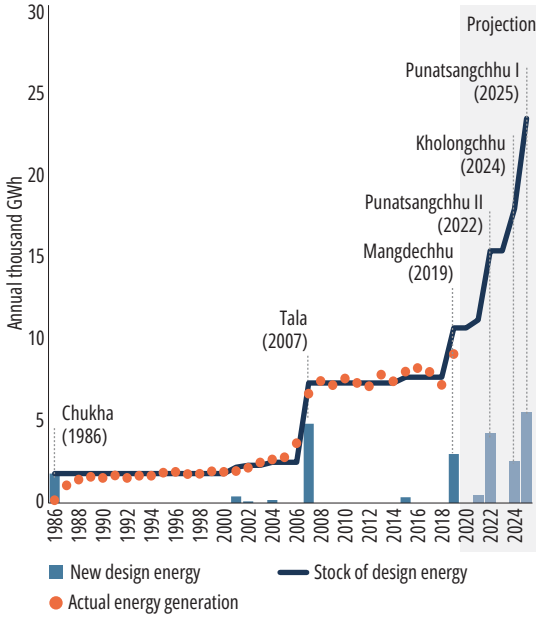


Figure E1b: **Hydropower generation in Bhutan**



Bhutan sustained a robust fiscal position before the onset of COVID; however, the situation has since witnessed a deterioration. Bhutan's revenue to GDP ratio averaged at around 30 percent of GDP over FY10/11 and FY21/22, supported by revenue from hydropower projects and sizable external grants (Figure E2a). However, revenue was on a declining trend that was further exacerbated by the onset of COVID-19. The pandemic necessitated an expansionary fiscal stance and led to delays in the commissioning of new hydropower projects[1]. In the aftermath of the pandemic, despite a rapid phasing out of extraordinary outlays and containment in current expenditures, the government continued to provide fiscal support to boost economic activity by frontloading the 12th Five Year Plan (FYP) covering 2018-2023, resulting in a rise in capital expenditure. Consequently, the fiscal deficit widened from around 2 percent in FY18/19 to 6.7 percent of GDP in FY20/21 and further to 8.4 percent in FY21/22—the highest in over a decade (Figure E2b).

1 In FY19/20 and FY20/21, tax revenue decreased by approximately 4 percent of GDP, while expenses increased by roughly 13 percent of GDP.

Figure E2a: **Revenue and expenditure (% of GDP)**

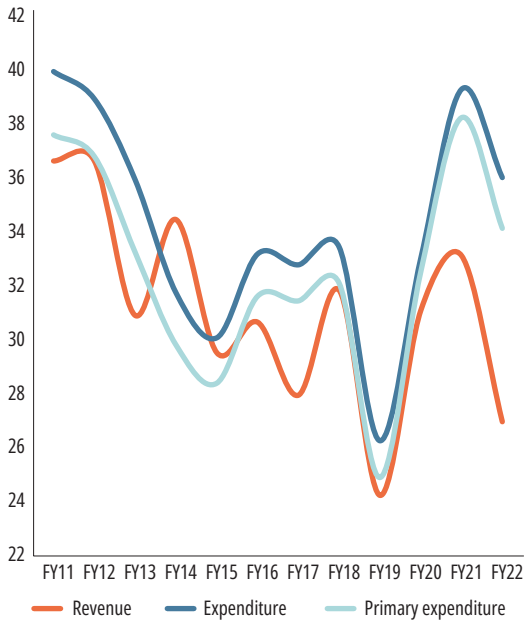
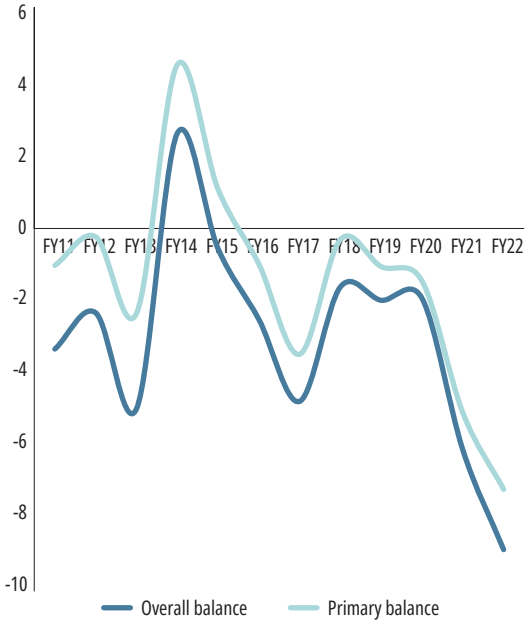


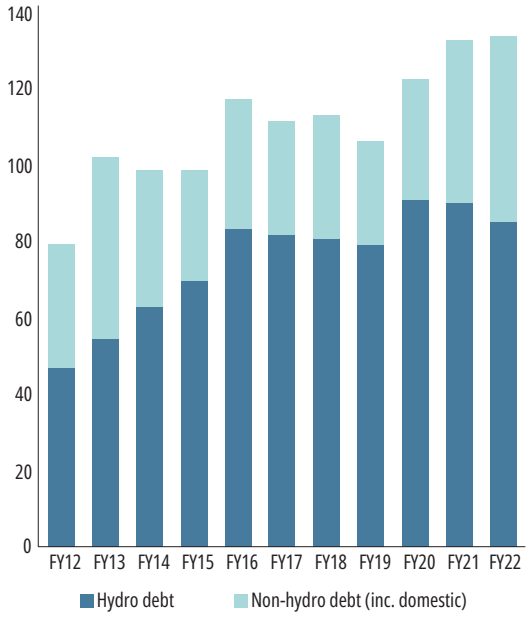
Figure E2b: **Overall and primary balance (% of GDP)**



Source: Ministry of Finance.

Bulk of the public debt is external and has increased over the past decade. Public debt has increased significantly from 69.1 percent of GDP in FY10/11 to 133.3 percent of GDP in FY21/22, mainly driven by external borrowing for hydropower projects. Of the public debt, over 97 percent is external, and 74 percent is attributed to hydropower projects (Figure E3). The public debt associated with hydropower projects is generally in concessional terms. Debt service payments are covered by revenues generated from hydropower exports, which more than offset the debt service payments.

Figure E3: **Public debt (% of GDP)**



There are multiple sources of fiscal risks. Fiscal risks arise from three major sources:

i. *An expected decline in external grants coupled with limited non-hydropower revenue potential:* External grants have decreased from nearly 14.0 percent of GDP in FY11/12 to 7.0 percent in FY21/22 and are expected to decline further as Bhutan is expected to graduate from the Least Developed Countries (LDC) status by 2023, which is expected reduce overseas development assistance (ODA). The decline in ODA grants needs to be offset by robust revenue collection, but the enhancement of tax bases beyond hydropower has been constrained by relatively weak tax collection efforts and the limited size of the domestic private sector. This limits Bhutan's ability to ramp up spending on priority sectors to achieve ambitious development goals.

ii. *A structural procyclical fiscal policy stance and rigid fiscal rules:* Hydropower revenue is volatile, as profit transfers and dividends from SEs fluctuate depending on the commissioning of new plants and weather patterns.[2] The resulting temporary increase of fiscal space can trigger expansion of outlays that are not easy to roll back when the cycle is reverted. Increase in current expenditure based on temporary increase in profit transfers from other sources (i.e., crypto mining) poses a similar risk. Even though the Public Finance Act mandates that current expenditures need to be met entirely with domestic resources, it does not constrain the growth of recurrent spending when there is a temporary increase in domestic hydro revenues. As a result, domestic revenue increases have typically been accompanied by increased recurrent expenditures, leading to a procyclical fiscal policy stance. Moreover, spending in times of need can be unnecessarily constrained due to the fiscal rules requiring current expenditures to be financed by domestic revenues. For example, during the pandemic, the RGoB was unable to use grants and external concessional loans to finance current expenditure and had to establish the National Resilience Fund (NRF) outside of the budget since the domestic revenue was not adequate to cover the income transfers.

iii. *Contingent liabilities from SEs:* The number of SEs has more than doubled from 18 in FY04/05 to 39 in FY19/20. SEs account for about one third of domestic revenues and they benefit from public transfers and guarantees. In FY19/20, around 50 percent were loss-making with liabilities and outstanding loans increasing. As a result, contingent liabilities from SEs – including guarantees on SE borrowing – are projected to increase from 5.6 percent of GDP in FY20/21 to an estimated 7.1 percent in FY21/22.[3]

To restore fiscal space, it will be critical to pursue fiscal consolidation in the medium term. The government's ability to follow the plan outlined in the 13th FYP is constrained by limited fiscal space and high debt levels. Therefore, the immediate priority would be to expedite reforms that enhance domestic resource mobilization, rationalize spending, and improve spending efficiency to restore fiscal space and sustain public debt. In this regard, the Royal Government of Bhutan (RGoB) and World Bank worked towards preparing a medium-term macroeconomic framework (MTMF) to implement fiscal consolidation, to ensure that the economy remains on a sustainable path. Under the MTMF, total revenue is envisioned to fluctuate between 23-31 percent of GDP between FY22/23-FY27/28, amidst a robust but volatile contribution from the hydropower sector and declining grants. A decline in government expenditure is expected due to a decline in capital expenditure vis-à-vis the pandemic years.

A Fiscal Sustainability Analysis (FSA) based on the MTMF assumptions indicates that fiscal consolidation is critical to ensure fiscal sustainability. The fiscal situation significantly worsens if capital expenditures are maintained at current levels of 18.1 percent of GDP rather than reducing them to 10.2 percent in the medium term as assumed in the MTMF. The fiscal outlook depends crucially on the commissioning dates of the hydropower projects. Bhutan needs to prepare for contingent scenarios and create fiscal buffers that could protect the country from negative shocks.

Bhutan's domestic resource mobilization is significantly dependent on external grants and non-tax revenues. Tax efforts is low due to a narrow tax base and a complex tax structure.

Grants and non-tax revenue contribute significantly to Bhutan's government revenues and cause significantly fluctuations of the revenues. Non-tax revenues and grants in other resource rich and peer countries account for less than 25 percent of total revenue, but they account for more than 50 percent in Bhutan (figure E4a). Due to fluctuations in external grants and revenue from hydropower sources, revenue performance remained volatile over the last decade (figure E4b). The increase in non-tax revenue[4] since FY18/19 was driven by profit transfers from Mangdechhu hydropower project and the Royal Monetary Authority (Ministry of Finance, 2020a). Revenue mobilization was constrained by a slowdown in tax collection in the latter part of the past decade.

Bhutan's tax effort is low, and the tax gap is increasing. The overall tax collection for Bhutan is lower than what would be expected based on its per capita GDP. This is driven by underperformance in personal income tax (PIT), sales tax, excise, and customs duty compared to other countries at a similar level of per capita GDP. Estimation of a cross-country model[5] to compare

2 Commissioning implies that the hydropower project has come onstream, and that all systems and components of the hydropower plant are installed, tested, operated, and maintained according to the operational requirements.
3 Contingent liabilities include central government guarantees on SE borrowing (2.6 percent of GDP), and DHI guarantees on subsidiaries borrowing (4.4 percent of GDP in FY20/21).
4 Non-tax revenue includes revenue from government agencies, dividends, and transfer of profits from state enterprises (SEs).
5 Based on the methodology outlined in Khwaja and Iyer (2014) and World Bank (2020).

Figure E4a: **Share of grants and non-tax revenue in total revenue**

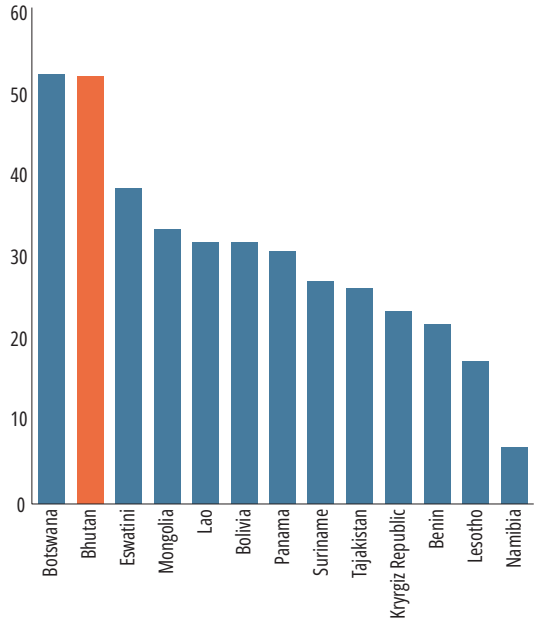
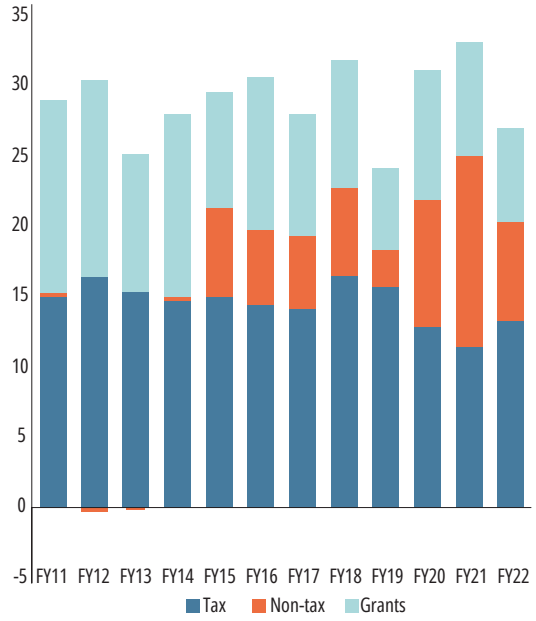


Figure E4b: **Revenue to total GDP ratio**



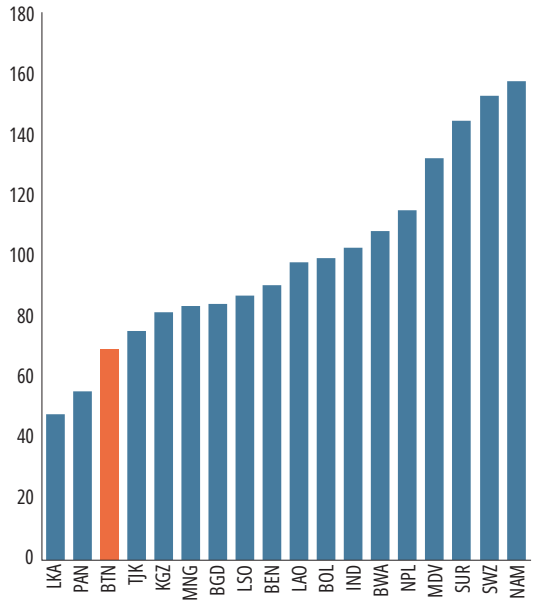
Source: MoF, WDI, staff estimate

the actual vis-a-vis the predicted tax revenue, considering various economic, institutional, demographic, and structural indicators, shows that the tax effort for Bhutan is 70 percent lower than most structural and aspirational peers (Figure E5). A tax gap analysis[6] indicates that Bhutan could have potentially increased its total tax collections by 5.4 percent of GDP in FY20/21. However, Bhutan's tax system has remained progressive in nature, imposing a proportionately higher burden on households in the top 10 percent of income earners.

Direct tax collections have a narrow tax base. Over the period of 2015-2022, revenues from personal income tax (PIT) remained stagnant. By lowering the PIT threshold, there is a potential to cover significant additional population that can distribute the burden of taxes over a larger tax base. Individual taxpayers are not taxed on capital gains from the sale of immovable property such as land or buildings, or movable property such as shares or securities. Moreover, small and medium enterprises largely remain outside the tax net due to various tax incentives.

There are distortions in the indirect tax structure and the implementation of the Goods and Services Tax (GST) has been delayed. Indirect taxation is primarily dependent on

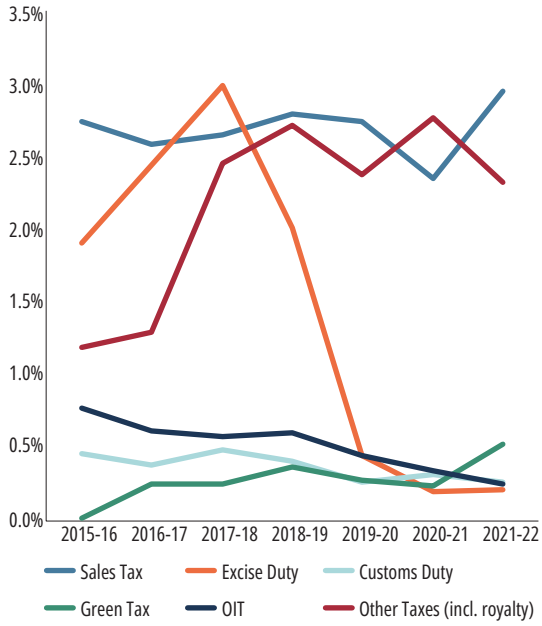
Figure E5: **Tax effort (Actual/Predicted*100)**



6 The analysis is based on IMFs GFS dataset where total tax consists of i) taxes on goods and services ii) taxes on trade and transactions iii) taxes on incomes, and iv) taxes on property.

sales tax and royalties (figure E6)[7]. Sales tax and customs duty paid on goods at Point of Entry (POE) are subject to many exemptions, and only few of them are covered by sales tax at the point of sale (POS)[8]. These taxes paid on goods at POE can have a cascading effect on businesses if such goods are not covered by sales tax at POS. Implementation of a comprehensive GST regime that replaces sales tax and excise duty is expected to eliminate cascading of taxes on businesses, promote ease of doing business, and expand the tax base. Preliminary analysis suggests the revenue boost from the GST could amount to nearly 2 percent of GDP in the medium term.[9] However, the rollout of the GST has been deferred till the necessary software and information system are ready.

Figure E6: **Indirect taxes (% of GDP)**



A variety of tax exemptions reduces and complicates tax collection. Tax expenditure due to FI Act, 2010 for the period 2008-2018 stood at an average of 0.8 percent of GDP. Subsequently, the Fiscal Incentives Act, 2017 led to a sharp growth in tax expenditure. In 2020, tax expenditure was 2.9 percent of GDP (figure E7a), owing mainly to customs duty (58 percent), sales tax (42 percent), and green tax (0.2 percent) foregone on imports. A significant proportion of sales tax revenue is foregone due to exemptions as most domestically produced goods and services are not subject to sales tax. In 2019, sales tax forgone amounted to 27 percent of total sales tax collection. The distribution of revenue foregone in FY20/21 due to direct business tax incentives reveals that

Figure E7a: **Revenue foregone (% of GDP)**

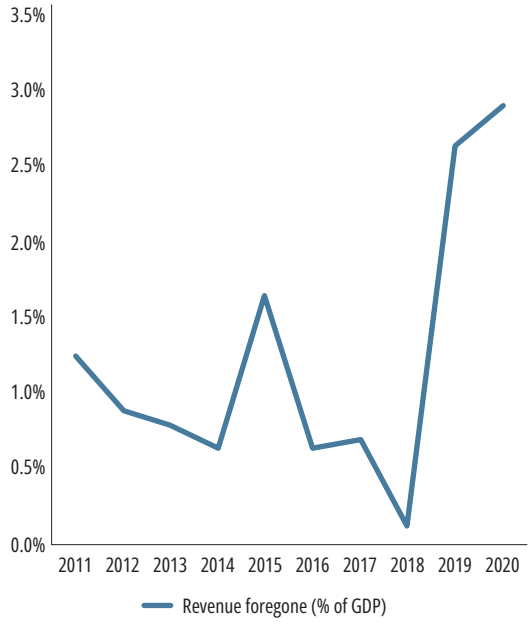
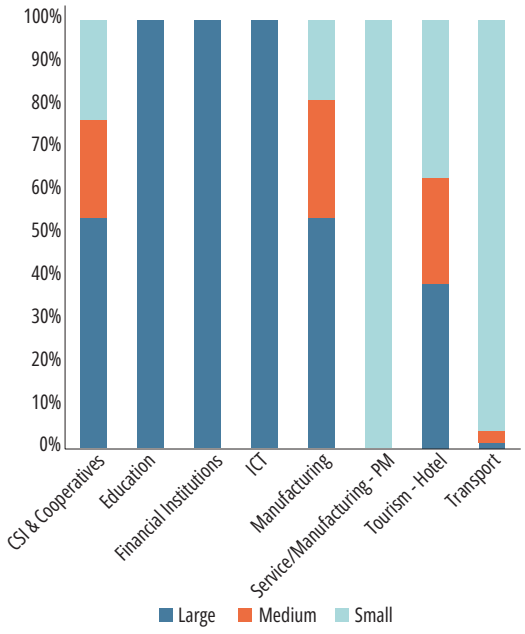


Figure E7b: **Share of tax incentives used by business size**



7 Includes sustainable development fees for international tourists, and royalties on forest products, mines and minerals, and hydropower.
8 In 2017, for the first time, the sales tax collected at the POE dropped below sales tax at the Point of Sale (POS) due to the: i) the introduction of the Goods and Services Tax (GST) in India, which reduced the value of imported goods from India, and ii) the shift in the collection of sales tax on motor vehicles from the point of entry to the point of sale.
9 Bhutan: 2022 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Bhutan

most benefits were claimed by large and medium businesses in the manufacturing, financial, and tourism sectors (figure E7b)[10]. Though the estimation of tax expenditures is regularly published by the authorities, there are scopes to conduct more extensive cost-benefit analysis of tax expenditures which can be used to streamline them.

The taxation system for small businesses is more complex than necessary. Only 1 percent of the total registered businesses account for about 60 percent of business income tax revenues. Most companies and businesses are small and do not contribute significantly to revenues, but tax administration still focuses on assessing them. BIT collection from small and micro businesses in urban areas is made based on a complex estimated assessment. Currently, tax officials make the estimated assessment by physically visiting shops. Sole proprietors with income from different sources are taxed at different rates, which creates arbitrage opportunities and incentives for tax evasion.

The country's tax policies and administration could be improved to address lack of good compliance monitoring, and low rates of filing, payment, and recording of taxes. Tax systems rely heavily on complete and accurate reporting of information by taxpayers in tax declarations. The Department of Revenue and Customs (DRC) has in place appropriate desk and field audit programs to assess taxpayer's declarations for all core taxes, but assessment programs are not fully risk based and not weighted towards large taxpayers or high-risk sectors. Bhutan lacks a good compliance monitoring system to make sure taxpayers abide by the requisite rules. Intelligence gathering and risk analysis are in place, but they are not incorporated into a long-term plan. Plans to improve compliance only address a limited range of risks, and do not cover all taxes, taxpayer groups, or taxpayer obligations. The lack of an operational Large Taxpayer Unit (LTU) hinders the effectiveness of the DRC in controlling compliance. The process for detecting non-filers is not fully automated, and there are no documented procedures for follow-up actions. As a result, filing, payment, and recording of taxes is below standard, and voluntary compliance is low. The consolidation of different tax numbers into a unique taxpayer identification number (TIN) could facilitate routine identification of taxpayers for administrative actions (e.g., detection of non-filers), third party information reporting and data matching (e.g., data matching in respect of interest earned on bank deposits, dividends paid by public companies, contract income, and asset sales), and exchange of information with other government agencies.

Expenditures are procyclical and there is significant scope to bolster the efficiency of expenditures across sectors

Bhutan's government spending has been volatile and procyclical. Total expenditure declined gradually from 45.4 percent of GDP in FY09/10 to 25.9 percent of GDP in FY18/19, before rising again to 39.3 percent in FY20/21 (figure E8a). Bhutan's current expenditures have fluctuated in line with the revenue inflows from the hydropower sector. Capital expenditures typically follow a pattern during the five-year plans; the expenditures tend to be low in the first two years and increase towards the end of the plan. An analysis of cyclicality of government expenditure reveals a greater likelihood of procyclical stances during periods of sustained output growth (i.e., large positive output gap, figure E8b). This can be explained by the ineffectiveness of current fiscal rules in restraining expenditure growth during periods of sustained boom cycles. In an attempt to make the fiscal policy more countercyclical, government established the Bhutan Economic Stabilization Fund (BESF) in 2018. However, transfer of hydropower revenues to BESF has been put on hold since the pandemic.

Bhutan has one of the highest capital spending in the world, financed significantly by external grants. On average, capital expenditure has accounted for nearly 50 percent of total expenditures over the past decade, far exceeding most countries across all income groups (figure E9). This has contributed to desirable outcomes such as universal access to electricity, educational and health services. However, such high rates of public investments will be difficult to sustain in a fiscally sustainable manner if external grants decline. On average, 39 percent financing of overall infrastructure spending has been financed by foreign aid. Infrastructure spending will need to be adjusted downward as Bhutan graduates from the LDC status and hence external grants decline. With reduced resources, it will be increasingly important to improve the implementation of public investment projects. Although the overall rate of budget execution has been relatively high, under-execution of infrastructure spending has remained substantial—at more than 20 percent over the 2011-21 period.

10 Similarly, indirect tax incentives were also predominantly claimed by large businesses in the manufacturing, CSI & Cooperatives, and tourism sectors, except for the transport sector, where small businesses claimed a higher percentage of incentives.

Figure E8a: **Total expenditure (% of GDP)**

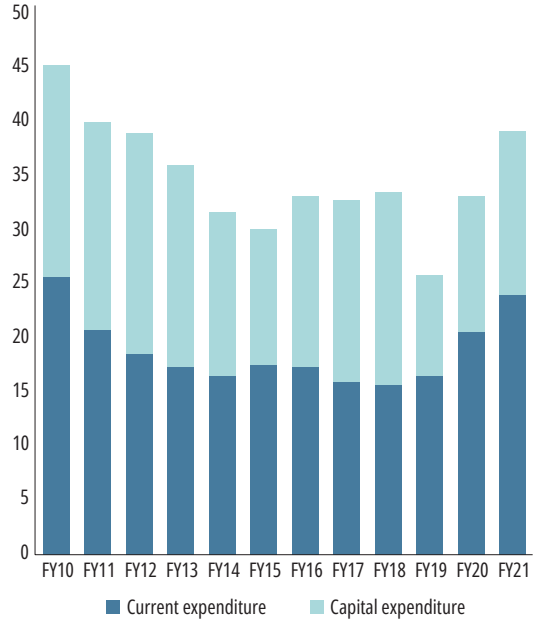
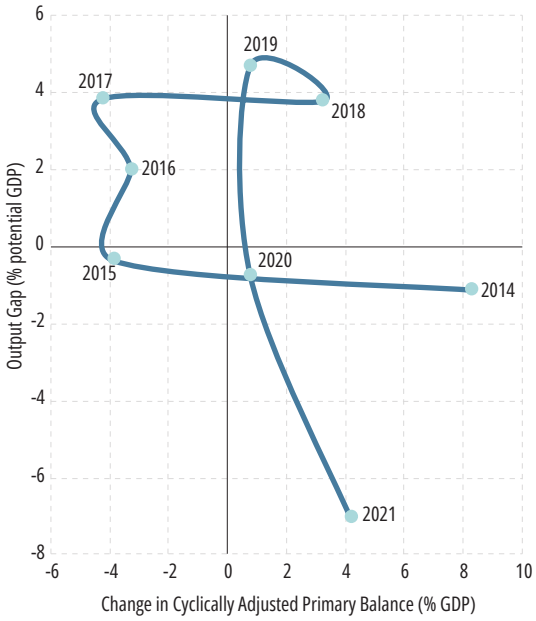


Figure E8b: **Character of Fiscal policy in Bhutan, 2014-21**

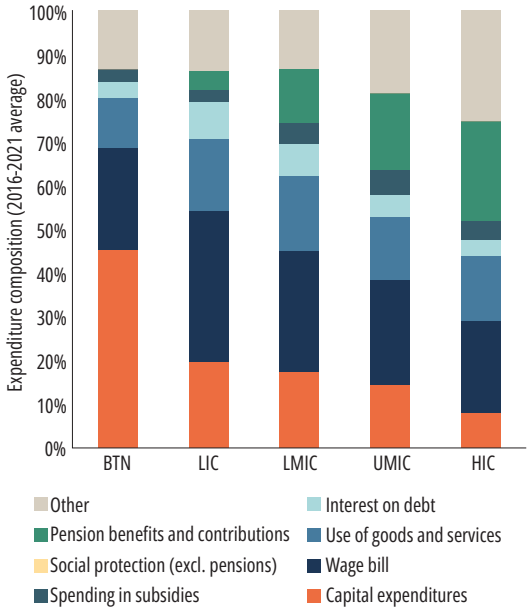


Source: World Bank staff estimates.

Bhutan has ample scope to improve the allocative and productive efficiency of public investment. A data envelope analysis (DEA) indicates opportunities for efficiency gains with an overall efficiency score of 60 for infrastructure (figure E10)[11]. The low efficiency score explains why Bhutan's infrastructure remains poor and ranks 97 out of 139 countries in the Logistic Performance Index, despite having a significant share of capital expenditure in GDP. Increasing spending in poorer districts such as Samdrup, Trongsa, and Samste, which receive comparatively lower budget allocations relative to their poverty rates, can improve regional disparities.

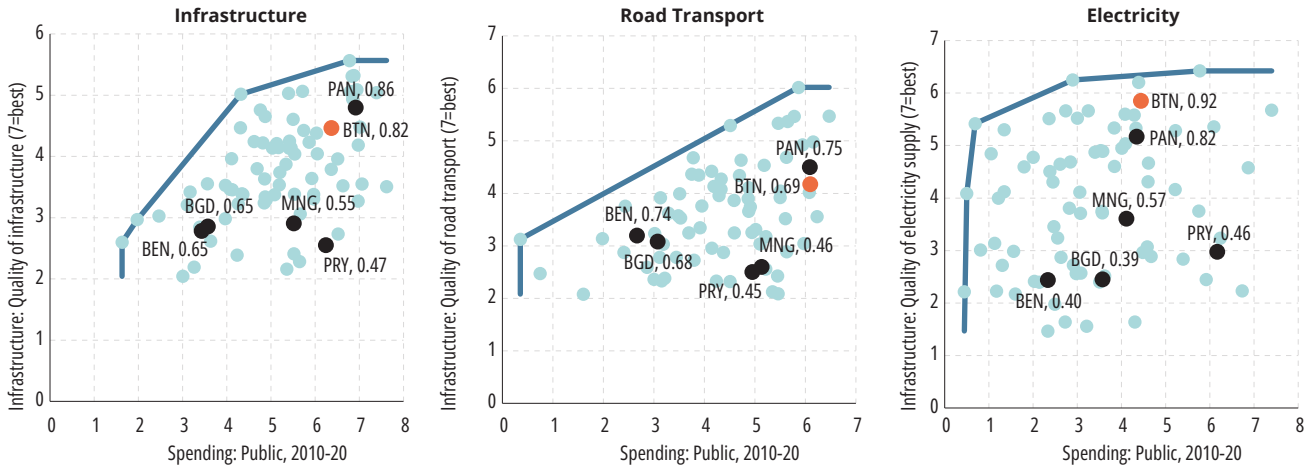
Bhutan's expenditure rigidity is relatively high compared to most of its peers. Around 60 percent of Bhutan's expenditure can be categorized as rigid. This includes wages, salaries, and part of capital expenditure that are tied to external financing. Bhutan's share of expenditures on pay and allowances are high compared to other countries, accounting for more than one-third of total current expenditure. The rigidity of its expenditure structure means that it can be challenging to adjust expenditures to create the requisite fiscal space.

Figure E9: **Bhutan's capital expenditure in international perspective**



11 The score is out of 100. A score of 100 represent a fully efficient use of capital expenditure.

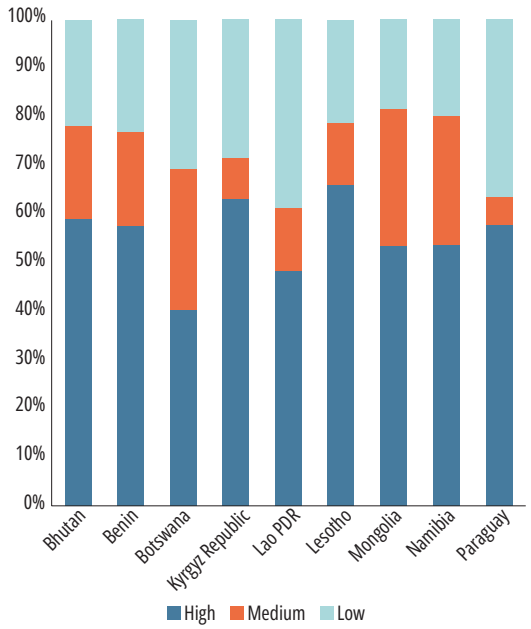
Figure E10: **DEA in infrastructure**



Source: World Bank staff estimates.

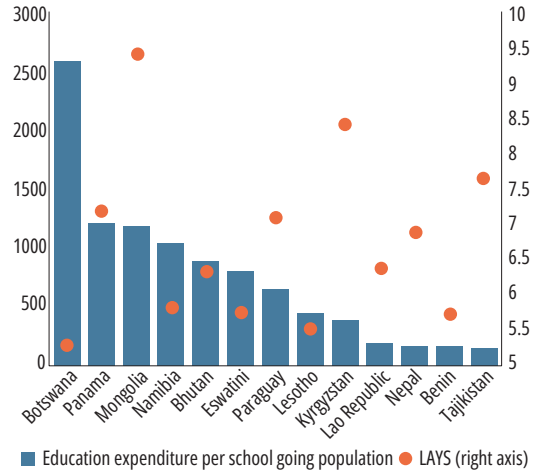
The government has been relatively successful in providing education and health services to its citizen, despite the difficult geographical terrain and dispersed population. In line with the mandate of the constitution, education and health services are predominantly financed and delivered by the public sector and has led to considerable improvements in access to formal education and in health outcomes. To ensure that students from remote regions can access education, Bhutan has implemented innovative solutions, such as mobile schools and boarding facilities. From an embryonic health system with two hospitals and 11 dispensaries and three doctors in 1961, Bhutan now has 28 hospitals, 156 Basic Health Units (BHU) and 654 Outreach clinics, serving patients at different corners of the country.

Figure E11: **Rigidity of expenditure (% of total expenditure)**



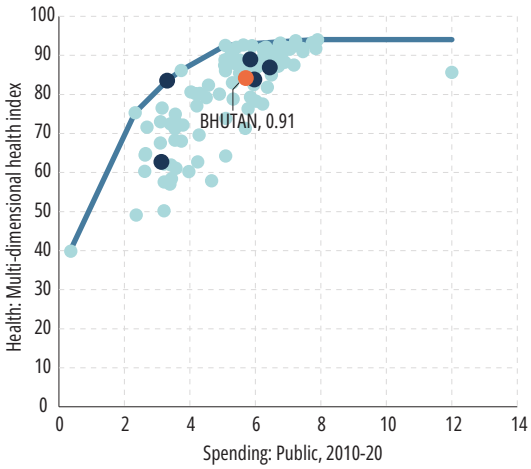
Bhutan spends more than most peers on education and health, with scope for efficiency gains in both sectors. Bhutan spends more on education per school-age child compared to most of its peers. However, in terms of the outcome—measured by the learning adjusted years of schooling (LAYS)—it is ranked lower than most of its peers (figure E12a). Despite improvements in access to education, the general skill level remains low and the mismatch between the curriculum and labor market needs is growing. On health, Bhutan's current health expenditure per capita in PPP terms is significantly higher than its regional peers and countries in the similar income group. Healthcare expenditures are predominantly financed by the government and citizens receive free access to basic public health services, resulting in out-of-pocket expenditure lower than the upper middle-income countries. DEA frontier analysis show that there are rooms to improve efficiency for both education and health expenditure (figure E12b). The efficiency indicators shows that the same level of health outcomes could have been achieved with approximately 6 to 9 percent fewer resources if health expenditures in Bhutan was as efficient as the most efficient countries in the sample (figure E12b). One potential area from improvement is the number of physicians. Bhutan's number of physicians per 1000 people is lower than the average of South Asian and lower-middle income countries. Also, despite marked improvement in service delivery in the health sector, geographic disparities remain. For example, infant and under five mortality is higher in the eastern region than in the western and central regions and under-five mortality in rural areas is twice that in urban areas (World Bank, 2019).

Figure E12a: **Education expenditure and LAYS**



Source: World Bank staff estimates.

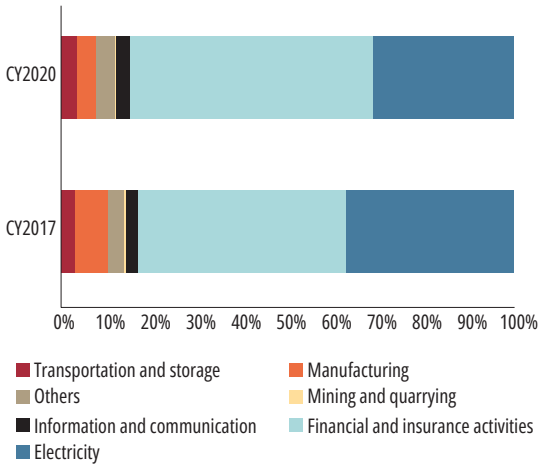
Figure E12b: **DEA Frontier analysis, health**



SEs account for a significant share of the economy and pose significant fiscal risks

The State Enterprises (SEs) are present across key sectors of the economy and generate substantial employment. The SEs operate across sectors including in electricity (primarily in hydropower generation and electricity distribution), manufacturing, the financial sector air transport, mining, agriculture, communication, Information and Communication Technology (ICT), and healthcare. The energy and financial sectors account for around 85 percent of the total SE assets in 2020 (Figure E13). These two sectors also account for the highest share of SE liabilities— 88.2 percent of total SE liabilities in 2020. Nearly 13,000 persons, or 4.1 percent of the total labor force, work in these enterprises. Employment is concentrated in the energy, financial and manufacturing sectors that account for 31.5 percent, 14.8 percent, and 15.5 percent of total SE employment, respectively.

Figure E13: **Distribution of SE Assets by Sector**



Source: SE Annual Reports and Word Bank Staff Calculations.

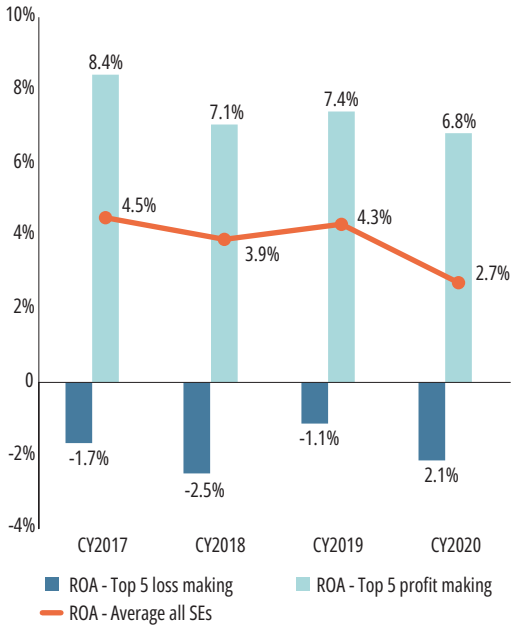
SE liabilities have significantly increased in recent years. SEs under the Ministry of Finance borrow to undertake quasi-fiscal activities. Liabilities have increased by 35 percent between 2017 and 2020. Druk Holding and Investment (DHI) had the highest increase in liabilities. SEs under the MoF experienced the largest increase in outstanding loans and possess a debt-to-equity ratio of 7.3, the highest among SEs. Around 9.4 percent of this debt is on-lent from the MoF and explicitly guaranteed by the RGoB. This would pose a fiscal risk to RGoB if the SEs are unable to meet debt obligations. Under the MoF, 10 out of 15 SEs reported a loss. Some of these losses can be attributed to an increase in quasi-fiscal activities during the COVID-19 pandemic[12] as these enterprises were utilized to provide various relief measures[13]. However, irrespective of the impact of the pandemic, several SEs have consistently reported losses in the past four years, including the Food Corporation of Bhutan Limited (involved in trading of consumer goods (FMCG) and supply of essential food items), Farm Machinery Corporation Limited (responsible

12 State Enterprises Annual Report CY2020, ICGD, Ministry of Finance
13 for example: the BBSCL ran a COVID-19 awareness campaign throughout the country, Bhutan Development Bank Limited (BDBL) provided 3-month interest cost waiver to over 52,000 loan account holders etc.

for provision of machinery to farming community) and National Cottage and Small Industries Development Bank Limited (NCSIDBL) (involved in financing of cottage and small industries).

The return on assets (ROA)[14] is relatively low in most sectors and negative in some. ROA measures the profitability of a firm with respect to its total assets. It can be affected by many factors ranging from the economy's demand and supply dynamics, institutional arrangements, corporate governance, and exogenous shocks. The mining sector, represented by the State Mining Corporation Limited (SMCL), registered the highest ROA at 27 percent, with a 268 percent increase in profits after the acquisition of Khothakpa Gypsum Mines in 2019.[15] The electricity and financial sectors, the largest SE sectors in terms of assets and employees, have low ROAs. Due to COVID-19, four sectors registered negative ROA in 2020. The transport and storage sector had the lowest ROA (-8.9 percent), followed by manufacturing (-4.6 percent), wholesale and retail trade (-2.7 percent), and construction (-0.2 percent). However, simple average ROA of SEs in Bhutan has been positive although on a declining trend (figure E14).

Figure E14: **ROA (%)**



Source: SE Annual Reports and Word Bank Staff Calculations

DHI, the state holding company, has invested in domestic crypto mining operations, financed by the RMA. Between March 2021 and April 2022, the RMA subscribed to a series of 3-year foreign exchange bonds, issued by DHI, in the amount of US$539 million (21 percent of FY21/22 GDP). The proceeds of the loans were used to import IT equipment for crypto mining operations and related goods, with the objective to accelerate the country's digital transformation and create local jobs. The DHI loans from the RMA and their repayment are reflected in the public debt statistics and the financial account of the balance of payments (BOP), including the 2021 SOE report and the 2023 national Debt Sustainability Analysis (DSA). However, the production and cross-border trading of the cryptocurrencies are not yet adequately reflected in the national accounts and DHI's audited financial statements. There are significant uncertainties related to the bitcoin mining operation that could delay DHI's loan repayment to RMA, which could constrain the country's ability to strengthen fiscal and external balances in the short and medium term.

SEs pose substantial fiscal risks. There are four distinct types of risk sources that are identified:

i. **The dependence of the budget on SE revenues, most of which are potentially volatile hydro revenues.** Almost 90 percent of budget revenues from SEs in FY20/21 were derived directly through profit transfers and hydropower royalties and indirectly via tax and dividend payments from DHI[16]. Hydro revenues are volatile and tend to spike when new hydropower plants come into operation. A second source of volatility is that budget revenues are vulnerable to fluctuations in the volume of power generated.[17]

ii. **The requirements to subsidize the quasi-fiscal activities of the Bhutan Power Corporation Limited (BPCL).** Fiscal risks related to BPCL include the provision of power to rural consumers at prices which are much less than the full cost of supply. As the number of rural consumers expands, a larger budget subsidy will be required to offset the

14 ROA is effective to measure company performance as it measures both income performance and the assets required to run it, hence capturing how effective a company is in converting the money it invests into net income.
15 State Mining Corporation Limited, Annual Report 2019
16 DGPC (which owns most of the hydropower plants) contributed 65 percent and 71 percent of the dividend income of DHI in 2019 and 2020 respectively (National Budget, FY21/22, p91).
17 This is because budget revenue is determined by two sets of residuals; i) the surplus power, after domestic demand is met, which is exported, and ii) the financial surplus after total costs of generation, including financing costs, have been deducted. Both domestic power demand and the total costs of generation are relatively stable and independent of the total power generated. Consequently, fluctuations in total power generated have an amplified impact, firstly on the surplus available for export and, secondly on the financial surplus, after costs are deducted from export revenues, which is available to be paid as budget revenue.

losses incurred by BPCL. It received subsidies of about one percent of GDP per annum during FY18/19-FY20/21. Given that the BPCL's profitability is already low, further losses will need to be funded out of the government budget. Also, BPCL may have substantial capital investment requirements to maintain the quality of its assets and expand its coverage. If it cannot fund investments from retained earnings, it will have to borrow money for this purpose, which will entail explicit or implicit government contingent liabilities. The probability of these fiscal risks materializing is very high. Rural power subsidies currently amount to around one percent of GDP.

iii. **The risks emanating from loss making real sector SEs.** Some real sector SEs have substantial liabilities (totaling around 11 percent of GDP in total at end-2020). Unless the financial performance of these SEs can be improved, it is likely that they will require finance either from the budget or from DHI to honor their liabilities. If they are bailed out by DHI, its capacity to make dividend payments will be reduced (in effect these SEs will be cross subsidized by profitable SEs within the DHI structure).

iv. **The risks posed by SEs in the financial sector.** SEs accounted for 60 percent of the assets of the banking system and 51 percent of the assets of the non-banking financial institutions (NBFIs), including the NPPF, at end-2020. The financial performance of both state banks and NBFIs has been poor over the last few years and the economic disruptions caused by the COVID-19 pandemic have furthered weakened their balance sheets. Some SEs in the sector could require capital injections to restore capital adequacy because of loan losses. These capital injections will have to be funded directly, or indirectly through DHI, from the budget. In the long term, the liabilities of the defined benefit scheme of the NPPF may also require to be funded from fiscal resources. A significant share of SE borrowing is from the financial sector SEs and thus an additional source of fiscal risk.

In addition, fiscal risks also emanate from the SE investment management system. SEs implement several major investments, many of which are funded by government guaranteed loans. Given that several recent projects implemented by these enterprises are encountering delays and cost overruns, there is a fiscal risk related to these projects since little is known about the SE investment management system.

Overall, Bhutan has improved its legal, regulatory, and institutional framework to manage SEs over the past years. All SEs are corporatized and measures to enhance corporate governance i.e., corporate governance codes have been taken. Recently RGoB has started publishing annual SE performance reports. There are nevertheless still key SE policy gaps, i.e., ownership policy and dividend policy yet to be issued, challenges in SE debt and investment management and corporate governance oversight and quality and timeliness of SE financial reporting and audits. There is also room to expand the scope and quality of the annual SE report. SE performance management system has been established but will require improvements.

Policy recommendations provided in different chapters are summarized below:

Table E1: Summary of policy recommendations

Area of reform	Description	Timeframe
Domestic Resource Mobilization		
Tax policy		
Personal income tax	Reduce the PIT threshold and tax exemptions	Short
Capital gains tax	Introduce capital gains tax on sale of immovable properties	Short
Tax expenditure	Perform a comprehensive cost benefit analysis of the tax expenditures and rationalize them	Medium to long
Business income tax	Simplify the taxation regime for small businesses to reduce the compliance burden, administrative costs, and improve voluntary compliance.	Medium to long
Tax administration		
GST implementation	Develop and implement a timebound action plan to implement the GST	Short
Large taxpayer unit	Establish a large taxpayer office	Short
Taxpayer Identification number	Merge different tax related numbers into a unique taxpayer identification number (TIN) to facilitate routine identification of taxpayers	Short
Public Expenditure		
Fiscal rules	Operationalize fiscal stabilization rules that regulate contributions to and disbursements from the Bhutan Economic Stabilization Fund (BESF)	Short
Fiscal consolidation (current expenditure)	Constraint the growth of spending on wages and salaries	Short
Fiscal consolidation (capital expenditure)	Prioritize projects and focus on capital expenditures that attract private investment	Short
Local government expenditure and regional disparities	Increase spending in poorer districts such as Samdrup, Trongsa, and Samste	Medium to long
Public Investment Management	(i) Establish a sound and modern PIM legal and regulatory framework (ii) Prepare a Medium-Term Public Investments Plans (MTIPs) in line with medium-term macro framework (iii)Strengthen project appraisal processes	Medium to long

Area of reform	Description	Timeframe
Education and health expenditure	Improve efficiency in education and health expenditure by prioritizing improvement in necessary technical skills, expanding the services to remote areas to reduce regional disperities, among others.	Medium to long
State Enterprises		
Fiscal risks		
Fiscal risk assessment	Conduct a comprehensive assessment of fiscal risks in the annual budget report, including an estimate of all SE related liabilities.	Short
Investment assessment	Undertake an assessment of SE investment management using international standards and strengthen the SE investment management framework.	Short
Quasi fiscal activities of BPC	Establish and publish clear criteria for estimate the cost of quasi-fiscal activites of BPC and Finance them explicitly from the budget.	Short
Long term NPPF liabilities	Undertake an actuarial evaluation of the defined benefit scheme with recommendations to strengthen its financial sustainability.	Short
Weak and loss making SEs	Establish an action plan to restore loss-making SEs to profitability.	Medium to long
Corporate governance		
Oversight	(i) Introduce a more centralized ownership model with clear reporting lines and responsibilities; and (ii) Strengthen MoF oversight role of all SEs and MoF – DHI collaboration; issue corporate governance code as required by the Companies Act and harmonize existing codes.	Short
Performance management	Review and assess DHI and MoF's performance-based compensation.	Short
Transparency and disclosure	(i) Publish annually an expanded SE report including SE financial and non-financial performance; (ii) Expand SE database to include more information on corporate governance including procurement, SE human resources and non-financial performance. (iii) Expand financial auditing and reporting to cover all loans and guarantees;(iv) enhance coverage and quality of SE financial reporting; and (v) strengthen quality and timelines of SE Audit reports.	Short
Board professionalization and diversity	(i) Scale-up training and establish clear appointment criteria of Board members and CEOs consistent across SEs; (ii) increase the share of private sector representatives and women in Boards; iii) professionalize the role of the company secretary and review their compensation.	Medium

Chapter 1

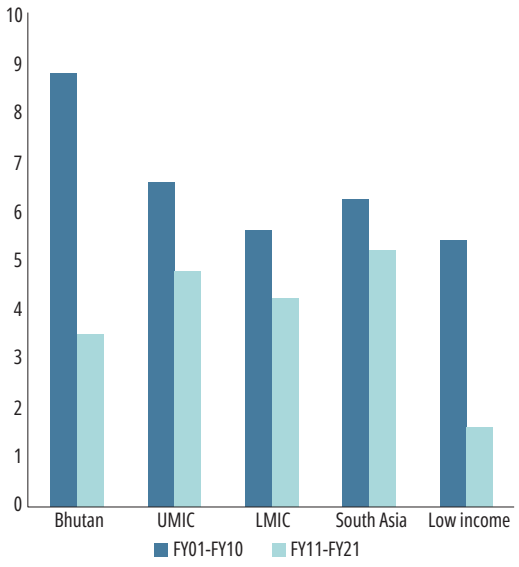
Macro-Fiscal Context

Bhutan has made decent economic progress in recent decades and maintained fiscal sustainability. However, it has faced challenges due to the widening fiscal deficit and rising public debt in the aftermath of the COVID-19 pandemic and the global ramifications of the Russia's invasion of Ukraine. Bhutan's procyclical fiscal policy stance, dependence on the hydropower sector, upcoming graduation from the Least Developed Country status, and contingent liabilities from a large SE sector pose considerable fiscal risks. To maintain fiscal sustainability, the Bhutanese government has adopted a Medium-Term Macroeconomic Framework focused on fiscal consolidation. Deviating from the planned path for fiscal consolidation could put Bhutan on an unsustainable fiscal path in the medium to long run.

Section 1: Macro-fiscal development

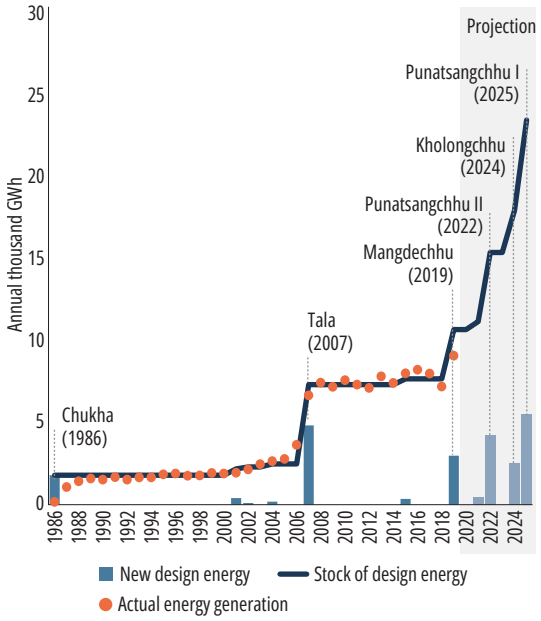
Bhutan has made decent economic progress over the past two decades. Despite Bhutan's distinctive geographical and economic attributes that poses obstacles to its development, Bhutan has maintained a relatively high average real GDP growth rate of 8.8 percent during the period from FY00/01-FY09/10. This growth rate surpasses that of other South Asian nations as well as low and middle-income economies. (Figure 1.1). During this period, the country made significant progress in improving its standard of living, with GDP per capita measured in purchasing power parity (PPP) terms almost tripling and extreme poverty nearly eliminated. In 2017, only 1.5 percent of the population lived on less than US$1.9 per day (PPP), down from 8.2 percent in 2007 and 17.8 percent in 2003. Based on development philosophy of Gross National Happiness (GNH), Bhutan's approach to development has been to balance economic growth with environmental sustainability, social progress, and cultural vibrancy, underpinned by a framework of good governance (GNH Commission, 2021).

Figure 1.1: **Real GDP growth rate**



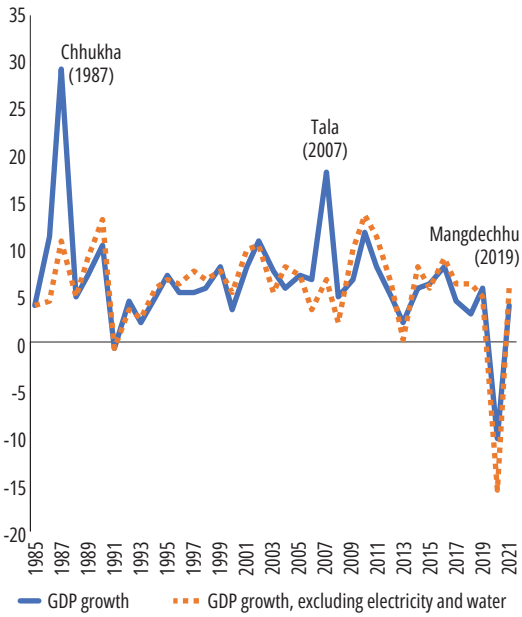
Growth was fueled by a rapid expansion of the hydropower sector. Bhutan's economic growth is heavily reliant on the construction cycle of hydropower projects, as the country has limited economic diversification and a nascent private sector. Bhutan's mountainous topography and dense network of rivers offer vast hydropower potential, which the country

Figure 1.2: **Hydropower generation in Bhutan**



Source: Based on national sources

Figure 1.3: **Impact of hydropower on GDP in Bhutan**



Source: NSB

has been harnessing since the mid-1980s with the commissioning of the Chhukha Hydropower Project in 1986 (Figure 1.2). Episodes of high growth in Bhutan have coincided with periods of increased investment during the construction phase, as well as with discrete jumps in exports when new plants are commissioned, with India being the primary purchaser of surplus electricity (Figure 1.3).[18] For instance, the construction of the Tala power plant between 2000 and 2004 resulted in investment-driven growth, while its commissioning in 2007 led to rapid short-term export growth. In addition to growth, hydropower development has also generated substantial economic rents for the government, some of which are distributed through direct public services and state enterprises (SEs) to generate employment and boost private consumption.

However, with a slack in hydropower capacity addition, the economic growth over the last decade was lower than the previous one. The electricity and water sector contributed an average of 2.5 percentage points to GDP growth between the FY00/01-FY10/11 period, but its contribution declined to 0.3 percentage points over the FY11/12-FY21/22 period in the absence of the commissioning of new hydropower projects (Figure 1.4). On the demand side, this was reflected in sluggish gross capital formation and stagnant hydropower exports over the latter period (Figure 1.5). Consequently, real GDP growth in Bhutan slowed down over the last decade, averaging only 3.5 percent, which was lower than the growth rates of regional peers and countries in a similar income group (Figure 1.1).

Figure 1.4: GDP growth by economic activity (contribution, in %)

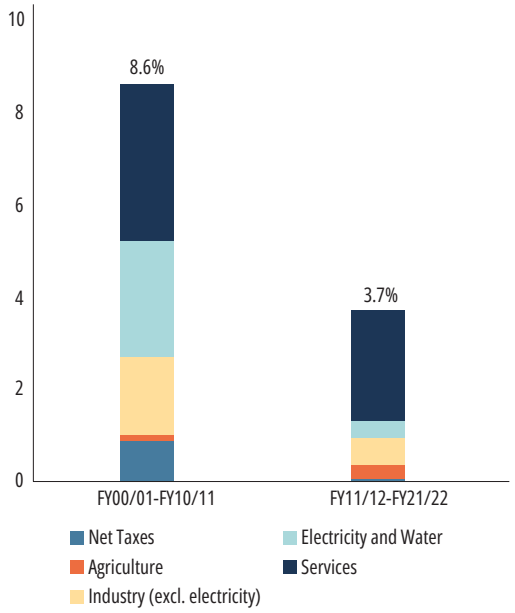
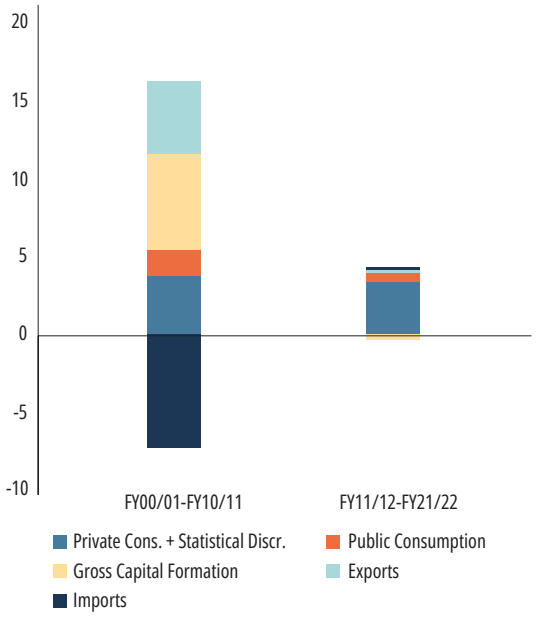


Figure 1.5: GDP growth by expenditure (contribution, in %)



Substantial hydropower revenues and grant support from India contributed to a decent fiscal position until recently. Between FY10/11 and FY21/22, Bhutan's total revenue remained at around 30 percent of GDP, supported by revenue from newly commissioned hydropower projects and sizable external grants. Over the last decade, around one-third of domestic revenues were contributed by hydropower projects through various tax and non-tax sources such as corporate income tax, royalties, dividends, and profit transfers. Meanwhile, external grants averaged about 10 percent of GDP during the same period, about 70 percent of which came from India. Public spending declined from 40.2 percent to 26.4 percent of GDP between FY10/11 to FY18/19 but has since risen again. Capital expenditure was volatile due to fluctuations in grants from India. This volatility, coupled with fluctuations in the contributions from the hydropower sector and external grants,

18 Expenditure on hydropower projects is off-budget during the construction phase. The investment is done by the SEs with funds on-lent from the government

Figure 1.6: **Revenues and expenditure (% of GDP)**

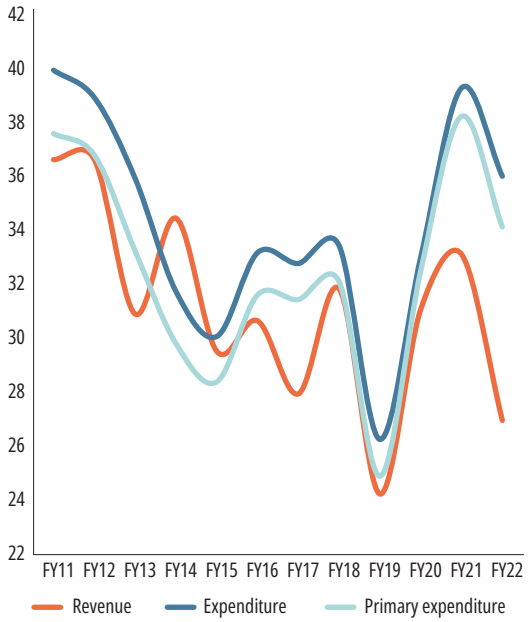
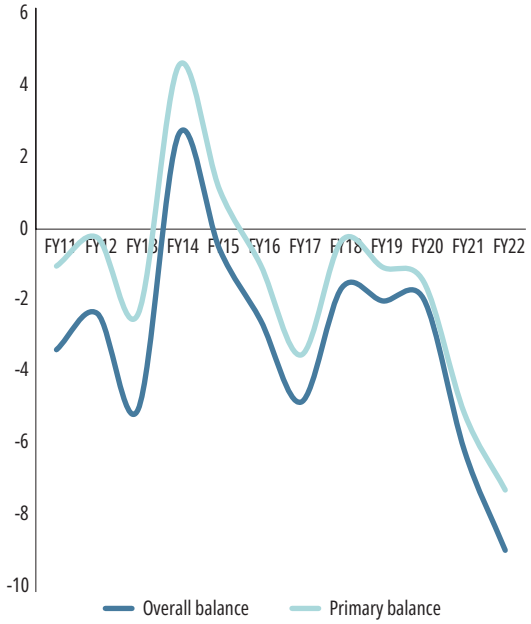


Figure 1.7: **Overall and primary balance (% of GDP)**



Source: Ministry of Finance

resulted in fluctuations in the overall fiscal balance over the last decade, ranging from a surplus of 2.3 percent of GDP in FY13/14 to a deficit of 8.4 percent of GDP in FY21/22 (Figure 1.7). The decline in the fiscal position in recent years can be primarily attributed to the shock of the COVID-19 pandemic (see box 1.1). The trend in the primary balance is similar due to the narrow and decreasing interest payments.

Despite a post-covid rebound in economic activities, Bhutan's fiscal condition deteriorated in FY21/22. A rapid phasing out of extraordinary outlays corresponding to NRF and Druk Gyalpo's Relief Kidu (DGRK) and the containment in current expenditures (including official travel and civil servants' benefits) supported the fiscal position. However, the government continued to provide fiscal support to boost economic activity by frontloading the 12th Five Year Plan (FYP), resulting in a rise in capital expenditure. The revenue fell due to decline in income and profits caused by the disruptions in economic activities and a decline in external grants disbursements due to delays in hydropower projects . Consequently, the fiscal deficit widened from 6.7 percent of GDP in FY20/21 to 8.4 percent in FY21/22.

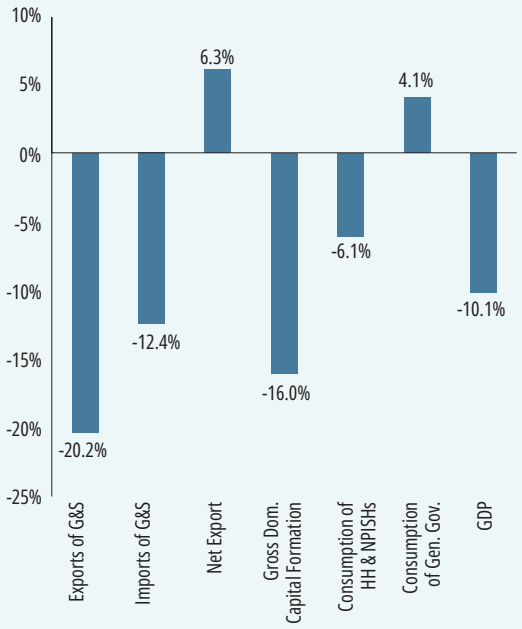
Public debt has increased over the past decade, driven by external disbursements for hydropower projects. Since FY11/12, public debt has increased from 79.4 percent of GDP to 133.3 percent of GDP in FY21/22, mainly driven by disbursements from external hydropower projects. Of the public debt, over 97 percent is external, and 74 percent is attributed to hydropower projects. As a result of this structure, public debt is primarily denominated in foreign currency. The public debt associated with hydropower projects is generally in concessional terms, driven by the grant component of the financing, -and is denominated in Indian Rupees. Since the local currency is pegged to Indian Rupees, the exchange rate risks remain limited. In terms of domestic debt, treasury bills account for 7.9 percent of GDP, while 3-12-year treasury bonds account for 5.8 percent.

Box 1.1: Impact of the COVID-19 pandemic

The roll-out of the first COVID-19 vaccine dose in Bhutan had been hailed as a big success. The establishment of an effective institutional framework to administer COVID-19 vaccines was identified as being and important foundation of Bhutan's successful vaccine roll-out. The institutional framework was centered around the National COVID-19 Vaccine Deployment Plan, which outlined the logistical details of the vaccine deployment, including the vaccine allocation framework and a vaccination monitoring system.

Despite the successful vaccination campaign, the COVID-19 pandemic and the resulting global recession had a profound impact on economic activity in 2020. GDP experienced a substantial decline of approximately 10 percent compared to the robust growth rate of 5.8 percent in 2019. This contraction was primarily attributed to the widespread implementation of nationwide lockdowns, which resulted in a significant decrease in private consumption and investment, leading to a surge in unemployment to an all-time high of 5 percent, double the figure recorded in 2019. In addition, the pandemic caused a sharp deceleration in foreign trade and tourism, exacerbating the economic slowdown.

Figure 1.8: **GDP in 2020 (year-on-year var, %)**



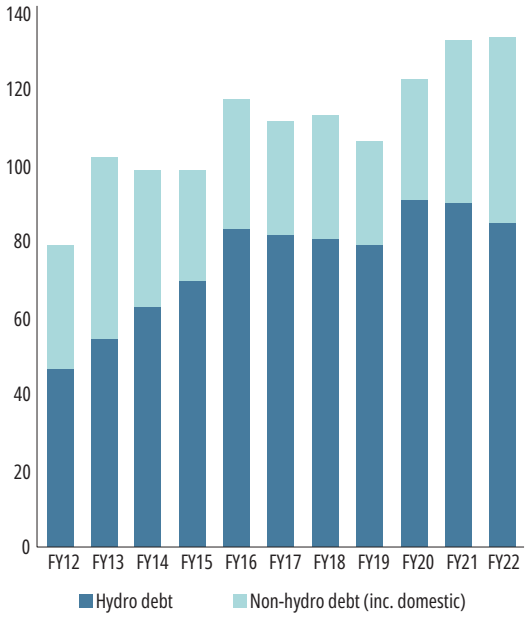
Tax revenue eroded and the government unfolded an expansionary fiscal response, resulting in a wider fiscal deficit. In FY19/20 and FY20/21, tax revenue decreased by approximately 4 percent of GDP, while expenses increased by roughly 13 percent of GDP. These changes were due to expansive countercyclical measures that are explained in more detail in box 3.1 of chapter 3. As a result, there was an overall deficit of 6.7 percent of GDP in FY20/21, a significant increase compared to the 2.1 percent deficit in FY18/19. Consequently, public debt increased by 26 percentage points to 132.4 percent of GDP in FY20/21. However, the negative fiscal impact was partially offset by the resumption of external grants, extraordinary income from the National Resilience Fund (NRF), and significant non-tax revenue from the hydropower sector. The hydropower sector generated substantial profits, with Mangdechu profit transfers reaching 2 percent of GDP in FY19/20 and 4.1 percent of GDP in FY20/21.

The construction of large infrastructure projects was further delayed during the pandemic, adding medium-term fiscal pressures. The commissioning of *Punatshangchhu* I and II dams[19], expected to nearly double generation capacity, was further postponed as safety protocols and lockdowns came into force. Setbacks in the development schedule of the hydropower projects carry a medium-term impact on both the domestic revenue and exports, abating the public and external debt repayment capacity.

19 The *Punatshangchhu* I Project (1,200 MW) original commissioning date was November 2016 and current estimates indicates that will be completed by end-2024. The *Punatshangchhu* II dam (1,020 MW) and the *Nikachhu* project (118 MV) were set for completion by 2018 and 2019 respectively, and the current planned finalization date is set by mid-2023.

While large investments in hydropower resulted in substantial external debt accumulation, risks of debt distress were mitigated by a bilateral agreement with India, the main creditor of the country's external debt. Over the past two decades, total public debt has increased significantly, with the majority of the debt being attributed to hydropower (figure 1.9). India supplies hydropower loans, which are then on-lent to state enterprises (SEs) responsible for the financing and management of hydropower infrastructure on behalf of the government. Debt service payments are covered by revenues generated from hydropower exports, which more than offset the debt service payments. Additionally, there is no exchange rate risk since both the electricity receipts and debt service payments are denominated in Indian Rupees, to which the Bhutanese ngultrum is pegged. However, despite a decline in hydropower debt in FY21/22 due to higher loan repayments, external non-hydropower debt and domestic debt increased, reflecting higher financing needs. There is some evidence that the RGoB reacts to the rising non-hydro debt when it's around the threshold set under the government's Public Debt Policy (see appendix 1).

Figure 1.9: **Public debt (% of GDP)**



Section 2: Sources of fiscal risks

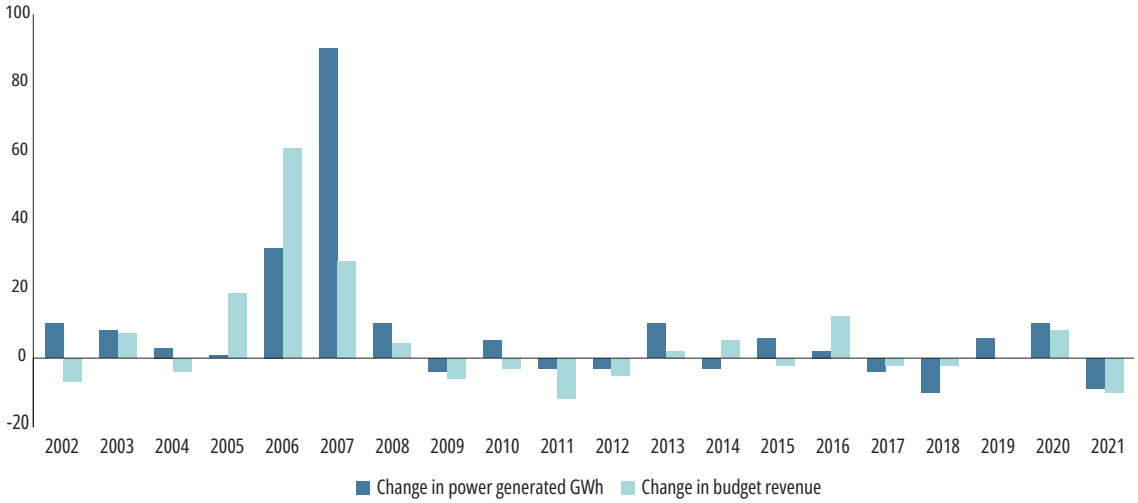
Despite its track record of macro-fiscal stability, Bhutan is increasingly exposed to fiscal risks, which may challenge its future macro-fiscal stability if they remain unaddressed. Fiscal risks arise from three major sources: (i) an expected decline in grant receipts coupled with limited non-hydropower revenue potential; (ii) a structural procyclical fiscal policy stance; and (iii) contingent liabilities from SEs and climate change.

In the absence of reforms, Bhutan's resource envelope is expected to moderate in the medium term. Bhutan is expected to graduate from the Least Developed Countries (LDC) status by 2023, which is expected to result in declining overseas development assistance (ODA). ODA is delivered through external grants, which have decreased from 14.0 percent of GDP in FY11/12 to 7.0 percent in FY21/22 and are expected to decline further with the LDC graduation. The decline in ODA grants needs to be met by robust revenue collection, but the enhancement of tax bases beyond the hydropower sector has been challenging. Non-hydro revenue generation is constrained by the limited size of the domestic private sector.[20] The prevalence of tax holidays and tax exemptions have generated tax expenditures equivalent to 0.8 percent of GDP on average between 2008-2018. Indirect tax collection relies on a sales tax, whose revenue generation is constrained by its narrow tax base and complex and distortionary exemptions, with future revenue growth potential being limited (see chapter 2 on revenues for further discussion).

Limited domestic resources may pose a challenge for meeting Bhutan's substantial unmet spending needs. Bhutan has ambitious development goals, outlined in the 21st Century Economic Roadmap, and aims to reach high-income status by 2030. The necessary transformation to achieve this goal is guided by the vision to pursue "a dynamic, prosperous, inclusive and sustainable economy" by developing a healthy, educated, and skilled workforce, and by investing in adequate physical and

20 For instance, the Druk Green Power Corporation (DGPC) – the utility company that operates and maintains hydropower assets – accounts for about one third of corporate income tax (CIT) collection.

Figure 1.10: Annual Changes in the Power Generated by Hydro Plants and in the Real Value of Budget Revenues from HPPs (percent), 2002-2021



Source: MoF and World Bank. The data excludes the power and budget revenues paid by the Mangdechhu HPP in 2019-21

digital infrastructure. Reaching these goals will require ramping up spending on priority sectors. On the human capital side, inequalities persist across urban-rural, income groups, and gender lines, and the 2020 Human Capital Index has highlighted that child born in Bhutan today will only attain 52 percent of their potential at age 18. Bottlenecks in physical and digital infrastructure limit connectivity within the country and with its neighbors: Bhutan ranks 97 out of 139 countries in the World Bank's Logistics Performance Index 2023 despite an improvement from the previous score, and households regularly cite investment in roads as the top priority for government intervention (World Bank, 2020). Achieving the country's development goals thus requires spending prudently and efficiently (see chapter 3 on public expenditure for further discussion).

A structural procyclical fiscal policy stance and rigid fiscal rules adds to the spending pressure. Hydropower revenue is volatile, as profit transfers and dividends from SEs fluctuate year-to-year depending on the commissioning of new plants and weather patterns (figure 1.10).[21] As current expenditures are structurally more rigid, volatility in incomes poses a fiscal risk as they create moments of fiscal space that allow the expansion of outlays that are not easy to roll back when the cycle is reverted. Increase in current expenditure based on temporary increase in profit transfers from other sources (i.e., crypto mining) could pose similar risk. The RGoB's Public Finance Act that states that current expenditures should be met entirely with domestic resources. However, this rule does not constrain the growth of current spending when there is a temporary increase in domestic revenues from hydropower. As a result, domestic revenue increases from the hydropower sector have typically been accompanied by increased current expenditures, leading to a procyclical fiscal policy stance.[22] Moreover, spending in times of need can be unnecessarily constrained due to the fiscal rules requiring current expenditures to be financed by domestic revenues. For example, during the pandemic, the RGoB was unable to use grants and external concessional loans to finance current expenditure and had to establish the NRF outside of the budget since the domestic revenue was not adequate to cover income transfer. There are also debt thresholds that can constraint borrowing in times of need. To manage the fiscal volatility associated with future hydropower projects, the RGoB has established the *Bhutan Economic Stabilization Fund* (BESF) in 2018 and has adopted fiscal stabilization measures, which regulate contributions to the fund. However, it was not continued after the COVID-19 pandemic.

Contingent liabilities from a large SE sector pose additional risks. The number of enterprises owned by the RGoB has grown from 18 in 2005 to 39 in 2020, and cover the energy, financial services, manufacturing, and trade sectors. The financial viability of SEs presents a source of fiscal risk for the government as they account for about one third of domestic revenues and benefit

21 Commissioning means that the hydropower project has come onstream, and that all systems and components of the hydropower plant are installed, tested, operated, and maintained according to the operational requirements.
22 For instance, when the Manghdechu hydropower project was commissioned in FY19/20, non-tax revenues increased by 80 percent, and current spending increased by 30 percent

Figure 1.11: SEs in the energy sector accounted for more than half of total pretax profit and one third of total assets of the SE sector in 2020

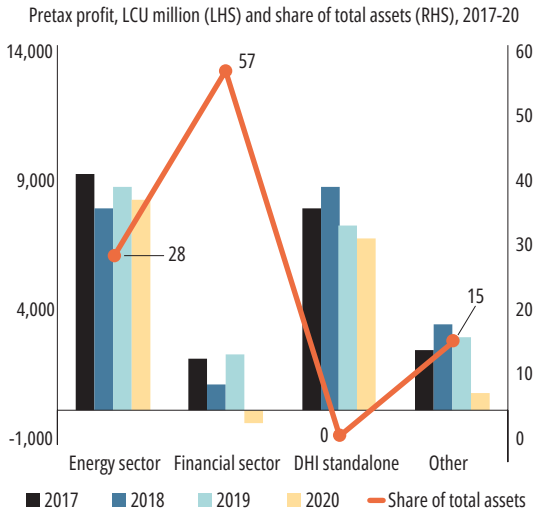


Table 1.1: SE liabilities and outstanding loans

	CY 2017	CY 2018	CY 2019	CY 2020
	% of gdp			
DHI Liabilities	53%	52%	61%	76%
Of which outstanding loans	10%	12%	15%	25%
MOF SEs (excl. DHI)	33%	35%	35%	41%
Of which outstanding loans	1%	1%	1%	4%
Total SE Liabilities	86%	87%	96%	116%
Of which outstanding loans	12%	13%	16%	29%

Source: MoF, WB staff estimates. *Note:* Energy sector SEs include Druk Green Power Corporation, Bhutan Power Corporation. Financial sector SEs include Bhutan Development Bank Ltd, National CSI Bank, Bhutan National Bank, Bank of Bhutan, and Royal Insurance Corporation of Bhutan Ltd. Data in table 2 does not include the DHI loans from RMA.

from public transfers and guarantees. In 2018 and 2019, around 25 percent of SEs were loss-making, which increased to 50 percent in 2020 due to the pandemic. Liabilities and outstanding loans are also increasing (table 1.1). As a result, contingent liabilities from SEs – including guarantees on SE borrowing – are projected to increase from 5.6 percent of GDP in FY20/21 to an estimated 7.1 percent in FY21/22 (see chapter 4 for further discussion on SEs).[23]

Bhutan is also highly susceptible to the adverse impacts of climate change, which can have direct fiscal implications. For instance, climate-induced changes to glacial-fed rivers will reduce hydropower production and government revenues, and disaster recovery efforts as well as climate change mitigation and adaptation measures will elevate government spending. Flooding and disruptions in usual rainfall patterns can affect agriculture production, the main source of livelihoods for the poor. Extreme weather events can create fiscal burden. For instance, cyclone Aila in 2009 cost US$17 million in damages, and extensive floods during the 2016 monsoon resulted in a loss of US$8.1million from damage to critical infrastructures (World Bank, 2020).

23 Contingent liabilities include central government guarantees on SE borrowing (2.6 percent of GDP), and DHI guarantees on subsidiaries borrowing (4.4 percent of GDP in FY20/21).

Section 3: Fiscal consolidation under the Medium-Term Macroeconomic Framework

The risks have increased due to the amplification of macroeconomic and financial sector vulnerabilities. Macroeconomic vulnerabilities have increased amid the pandemic and global ramifications of the Russia's invasion of Ukraine. Limited fiscal space and a fragile financial sector with high levels of non-performing loans have added to the pressure. International reserves have declined rapidly in FY21/22, limiting external buffers. If left unchecked, the public debt could reach an unsustainable level in the medium to long term. Delays in fiscal consolidation could further erode buffers, thereby constraining the government's ability to support a robust recovery.

To restore fiscal space for continued economic recovery, the RGoB and the World Bank has work towards preparing a Medium-Term Macroeconomic Framework (MTMF). During the pandemic, the expansionary fiscal policy was necessary to support economic recovery. However, the government's ability to follow the plan outlined in the 13th FYP is constrained by limited fiscal space and high debt levels. Therefore, it is important to expedite reforms that enhance domestic resource mobilization and improve spending efficiency to restore fiscal space and sustain public debt. Failure to consolidate the fiscal situation could lead to an unsustainable macroeconomic scenario (see scenario 1 in section 4). To address this, the RGoB and the World Bank worked towards preparing a medium-term macroeconomic framework (MTMF) to implement fiscal consolidation, which could ensure that the economy remains on a sustainable path. Major assumptions under the MTMF are shown in Table 1.2, and are described below:

Table 1.2: **Medium Term Macro Framework (MTMF)**

	FY19	FY20	FY21	FY22	FY23 (f)	FY24 (f)	FY25 (f)	FY26 (f)	FY27(f)	FY28(f)
GDP (% growth)	4.4	-2.3	-3.3	4.3	4.5	3.1	4.3	6.7	6.6	4.6
Fiscal sector (% of GDP)										
Revenue	24.3	31.1	33.2	28.4	27.6	23.8	27.0	30.9	27.8	24.3
o/w taxes	15.7	13.0	11.5	13.5	13.3	13.4	13.7	15.1	14.9	14.8
o/w non- tax and others	2.7	9.0	13.7	7.9	6.9	5.9	5.6	8.9	6.5	6.3
o/w grants	5.9	9.1	8.0	7.0	7.5	4.4	7.6	7.0	6.4	3.2
Expenditures	26.4	33.5	39.8	36.8	33.4	28.3	30.0	33.6	30.3	26.5
o/w current primary	15.1	19.8	23.1	16.4	16.0	15.5	15.0	14.3	13.8	13.3
o/w capital	9.4	12.6	15.3	18.1	15.5	10.5	12.5	16.5	13.3	10.2
o/w interest payments	1.4	0.9	1.5	2.1	2.0	2.3	2.5	2.8	3.2	3.0
Primary balance	-0.7	-1.5	-5.2	-6.3	-3.8	-2.2	-0.6	0.1	0.7	0.8
Overall balance	-2.1	-2.4	-6.7	-8.4	-5.8	-4.5	-3.0	-2.7	-2.5	-2.1
Public debt	106.5	122.8	132.4	133.3	135.0	130.4	121.3	130.1	115.7	103.9
o/w hydropower debt	79.2	90.8	90.2	85.3	82.2	78.1	71.1	83.0	72.0	63.0
o/w non-hydro (incl. domestic)	27.3	31.9	42.2	48.1	52.8	52.3	50.3	47.1	43.6	40.9
External sector (% of GDP)										
Exports	31.7	32.2	30.3	31.6	32.3	30.9	31.7	34.2	34.5	34.0
o/w hydro	6.3	8.6	15.7	12.4	11.7	9.9	9.9	12.8	10.0	9.4
Imports	50.2	48.9	42.0	62.7	60.1	47.7	41.4	37.5	35.1	33.6
Current account balance	-20.5	-15.8	-11.9	-33.1	-28.6	-19.2	-10.5	-3.0	0.5	1.1
FX reserves (US$ millions)	1064.8	1343.5	1332.4	832.9	551.1	376.3	373.0	516.0	634.1	764.3

GDP growth

GDP growth is expected to remain robust under the MTMF, driven by the expansion of the hydropower sector. The commissioning of the Nikachhu dam in 2023, followed by the Punatshangchhu I, Yungichhu, Burgangchhu, and Suchhu projects (slated for completion in 2025), are expected to significantly increase the generation of power in Bhutan. The expansion is projected to boost the country's power generation by 45 percent in FY25/26 and double its capacity over the next ten years (figure 1.12). This rapid increase in hydropower is likely to fuel economic growth, with the electricity and water sector contributing almost one-third of the overall growth. Moreover, services are expected to surpass the primary and secondary sectors, primarily driven by increased economic activities for trade, hotels, and restaurants.

From the demand side, growth is expected to be supported by improvement in trade balance. Following the commissioning of the aforementioned projects, hydropower exports are expected to drive the growth of exports, while imports are predicted to remain subdued. Public consumption, which saw an increase in its contribution to GDP during the pandemic and subsequent recovery, is expected to grow in tandem with overall economic activity. However, private consumption is expected to grow at a slower rate than GDP, and gross fixed capital formation is projected to decline due to reduced capital expenditure.

Figure 1.12: **Total generation (GWh)**

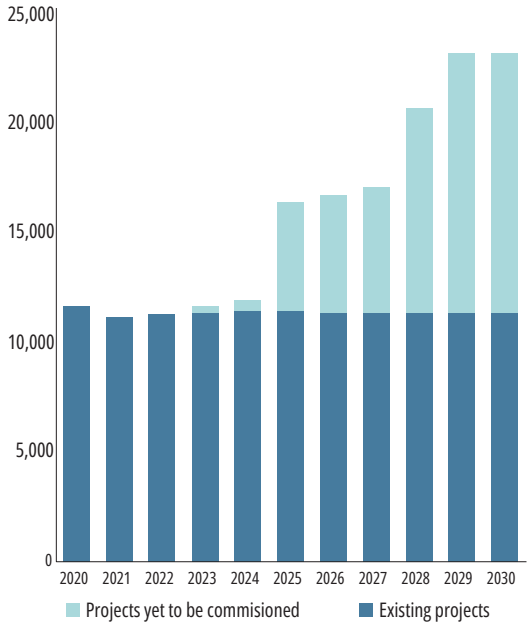
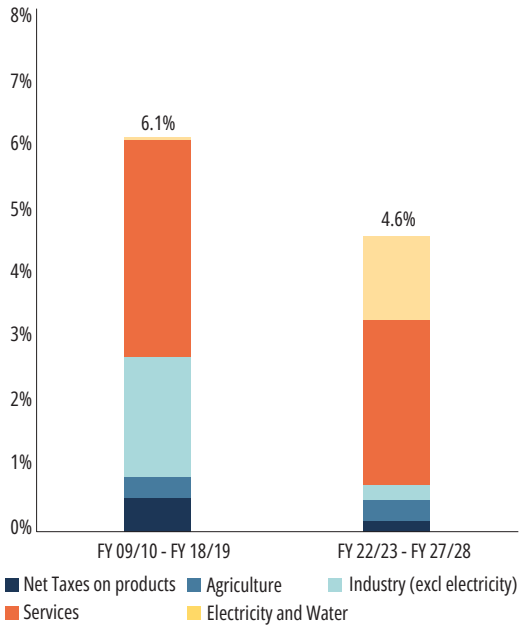


Figure 1.13: **Contribution to GDP growth, by activity (in p.p. of GDP)**



Source: Ministry of Finance

Fiscal sector

Total revenue is envisioned to fluctuate between 23-31 percent of GDP between FY22/23-FY27/28, amidst a robust but volatile contribution from the hydropower sector and declining grants. The hydropower sector has been a major contributor to Bhutan's domestic revenue and is expected to contribute around a third of total tax revenue in the medium term through CIT and royalties. However, its contribution is expected to be volatile, depending on the timing of the commissioning of the new hydropower projects. External grants, averaging around 11 percent of GDP over the last decade, have been crucial in supporting capital expenditures. However, the share of grants is expected to fall to below 4 percent of GDP in the medium term, constituting less than fifth of total revenue. This is mainly due to Bhutan graduating from Least Developed Countries (LDC) status in 2023, resulting in an anticipated decline in overall development assistance (ODA) grants.

Contribution from taxes is expected to increase to support domestic resource mobilization. Bhutan is exceptionally large share of non-tax sources in total revenue collection compared most countries. Going forward, it will be important to raise the contribution from taxes, particularly the direct taxes. Share of direct taxes in total revenue is expected to increase by 11.2 percent points to 44.1 percent within the next six years, while share of indirect taxes in also expected to increase by 2.0 percentage points. To achieve this goal for tax collection, Bhutan must undertake reforms in tax policy and administration and exploring new avenues for generating taxes. Chapter 2 discusses the challenges facing Bhutan in boosting tax collection and outlines possible reforms.

The MTMF envisions a decline in government expenditure in the medium-term in line with the government's fiscal consolidation plan. Bhutan's total expenditure is anticipated to moderate from 36.8 percent of GDP in FY21/22 to 26.5 percent of GDP by FY27/28. The decline will mostly be driven by a reduction in capital expenditures, as well as a steady decline in current expenditures. Capital expenditure as a share of GDP in expected to decline from 18.1 percent in FY21/22 to 10.2 percent in FY27/28. The expected decline in the current primary expenditures, falling by 3.1 percentage points of GDP over the same period, will rely heavily on a strong downsizing of compensation of employees (by 1.5 percentage points), purchase of goods and services (by 0.9 percentage points), and subsidies and transfers (by 0.4 percentage points). Implementing these efforts will be challenging, but if successful, will result in lower primary expenses of over 11.0 percentage points of GDP, which will be partly offset by an expected increase in interest payments of about 0.9 percentage points of GDP. Chapter 3 discusses Bhutan's public expenditure and the possible policy options to achieve the goal of fiscal consolidation under the MTMF.

Due to the fiscal consolidation, the overall balance is projected to narrow considerably. Amidst greater tax collection efforts, and robust revenue from the hydropower sector, revenue is expected to outpace GDP growth. Meanwhile, a sharp decline in expenditure, driven by a reduction is both capital and current outlays, is forecasted to lead to sustained fiscal consolidation. The primary balance, which reached a deficit of 6.3 percent of GDP in FY21/22, is expected to turn into a surplus of 0.8 percent of GDP by FY27/28 under the MTMF. Despite a projected gradual rise in interest payments to 2.8 percent of GDP by FY27/28, the overall fiscal deficit is envisaged to narrow to 2.1 percent of GDP in FY27/28 from a high of 8.4 percent of GDP in FY21/22.

With the resumption of growth and planned fiscal consolidation, it is anticipated that public debt as a share of GDP will decrease over the medium term. The combination of robust growth and fiscal consolidation is expected to reduce gross financing requirements, resulting in a downward trajectory for public debt. It is projected that by FY27/28, public debt will have v returned to pre-COVID levels. In the past few years, non-hydro external debt has come close to exceeding the limit of 35 percent of GDP set by the Public Debt Policy of 2016. Under the MTMF, non-hydro debt is predicted to remain under the threshold.

External sector

The current account deficit is expected to turn into a surplus, driven by robust export growth. Exports are expected to grow by 17 percent by FY27/28. While hydropower exports are expected to represent four out of ten dollars of exports on average during the period with some spike during the commissioning years of the hydropower projects, non-hydropower exports are also expected to increase by a significant 22 percent. With export growth outpacing imports growth, the current account deficit is expected to turn into a surplus by FY27/28.

Section 4: Scenario analysis

The envisioned in the MTMF is subject to considerable uncertainty. The MTMF assumes a robust and sustained economic growth trajectory and an improvement of the fiscal accounts with a downward track of public debt. This scenario heavily relies on the accomplishment of the current commissioning schedule of hydropower projects -that have been delayed several times in the past- and on the application of stiff expenditure measures that underpin the projected fiscal consolidation path.

This section conducts two counterfactual scenario analysis to analyze the impacts on the economy due to i) an absence of fiscal consolidation trend, and ii) delay in the commissioning schedule of the hydropower projects. Shock simulations were carried out using a Fiscal Sustainability Analysis (FSA) tool. The goal of these forecasts is to understand the direction and magnitude of change to the main macro-fiscal variables from the MTMF assumptions when the shocks materialize. Also, the forecasts are extended for the long term assuming stable GDP growth rate and targeting a balanced budget under the baseline.

Scenario 1: Business as usual with no fiscal consolidation

Maintaining the fiscal consolidation path under the MTMF will be challenging. The reduction of total expenditure by almost 10 percentage points of GDP within the next six years, driven by a cut in capital expenditure by 11.4 percent in nominal terms, is unprecedented for Bhutan where capital expenditure has grown by 34.3 percent in the previous six years. This will be a deviation from the government's 13th Five Year Plan and may require the government to move away from some of their political commitments. Many endogenous and exogenous factors may make it difficult for the government to maintain this path of fiscal consolidation.

In this section, a business-as-usual scenario is analyzed which does not follow the assumed fiscal consolidation path under the MTMF. Under this scenario, current expenditure is expected to remain around the FY21/22 level of 16.5 percent of GDP, while capital expenditure gradually rises in the medium to long run. The assumptions under the MTMF are also extended until FY39/40 in such a way that the primary balance deteriorates -from the initial surplus to a balance- driven by a moderate increase in expenditure.

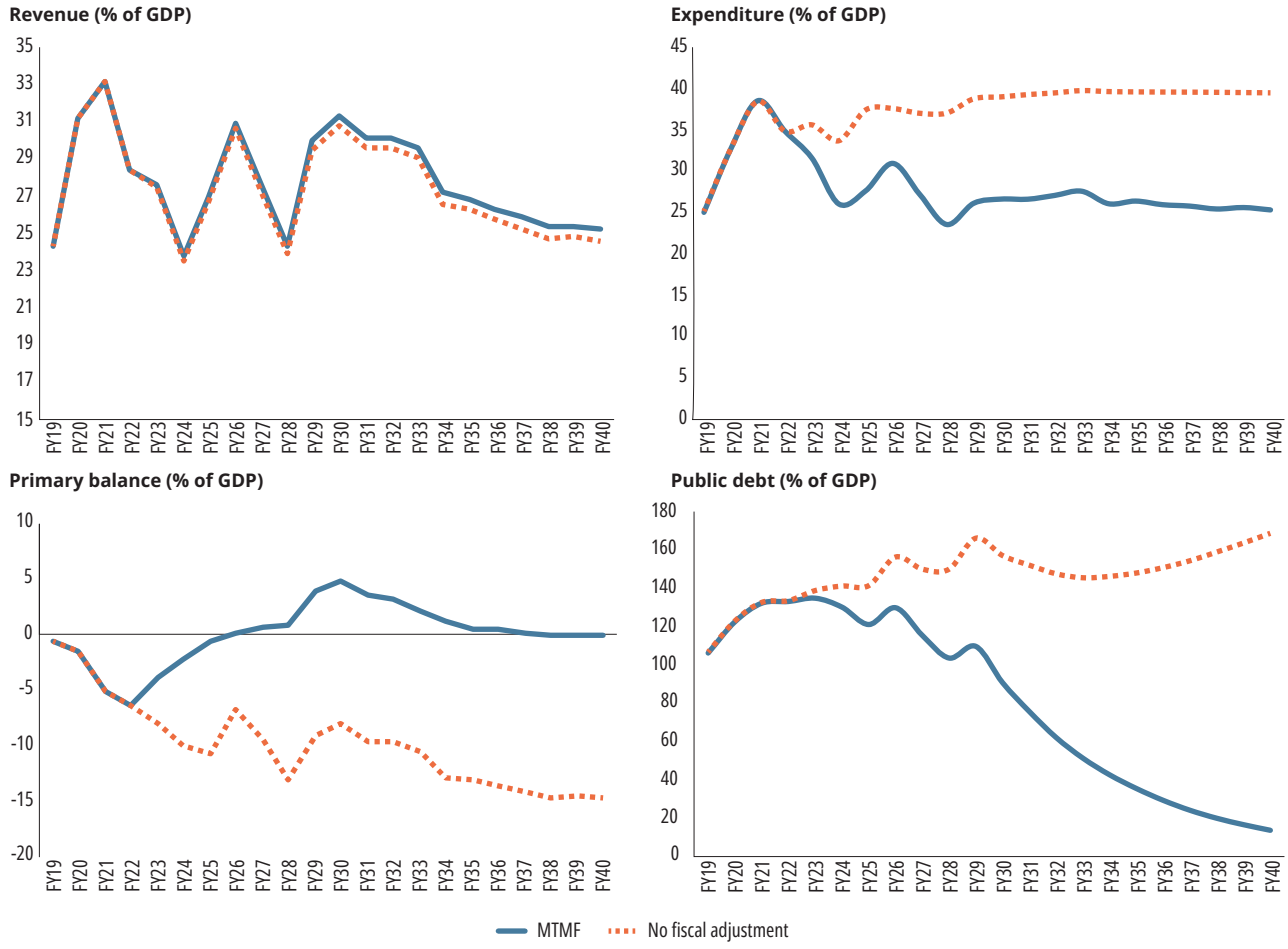
The higher expenditure worsens the fiscal situation considerably. This expansive fiscal policy -not accompanied by higher revenue when compared to the baseline scenario- will result in a deep and permanent worsening of the primary balance and an upward trend in public debt. The difference in primary balances between the MTMF and the no fiscal adjustment scenario peaks at 14.7 percentage points of GDP by FY39/40. As a result, public debt as a share of GDP in the business-as-usual scenario now follows an expansionary and unsustainable path, widening the difference from the MTMF scenario. GDP increases but the difference from the MTMF is marginal, as the positive impact of an expansionary fiscal policy via the fiscal multiplier is somewhat offset by the drag created by expanding financing need, potential debt overhang, and rollover risks.

There is a mixed impact on the existing fiscal rules. As mentioned in section 2, according to RGoB's Public Finance Act, Bhutan's current expenditures should be met entirely with domestic resources. Since the business-as-usual scenario is based on relatively stronger expansion of capital expenditure compared to the current expenditure, the rule is not violated in any year. However, the upward trajectory of the public debt due to widening fiscal deficit means that the fiscal rule regarding ceilings on non-hydro external debt at 35 percent of GDP could not be maintained.

Scenario 2: Shocks to the commissioning schedule of hydropower projects

The projected macro-fiscal trends under the MTMF inherently relies on a strict on-time completion of the hydropower projects. Due to Bhutan's reliance on the hydropower sector, the timely commissioning of the hydropower projects is crucial in achieving macro-fiscal targets under the MTMF. Bhutan has previously been significantly impacted by the delay in the implementation of the hydropower projects. For example, a World Bank study found that the delay in the completion of completion of Punatsangchhu I and II hydropower projects by one year could have reduced GDP growth rate by 3–4 percentage points and exports by US$250–300 million (World Bank, 2020b). The commissioning of the four large hydropower projects (Punatshangchhu I and II, Kholongchhu, and Nikachhu) and eight other smaller projects (Yungichhu, Burgangchhu, Suchhu, Druk

Figure 1.14: **Business as usual vs. MTMF**

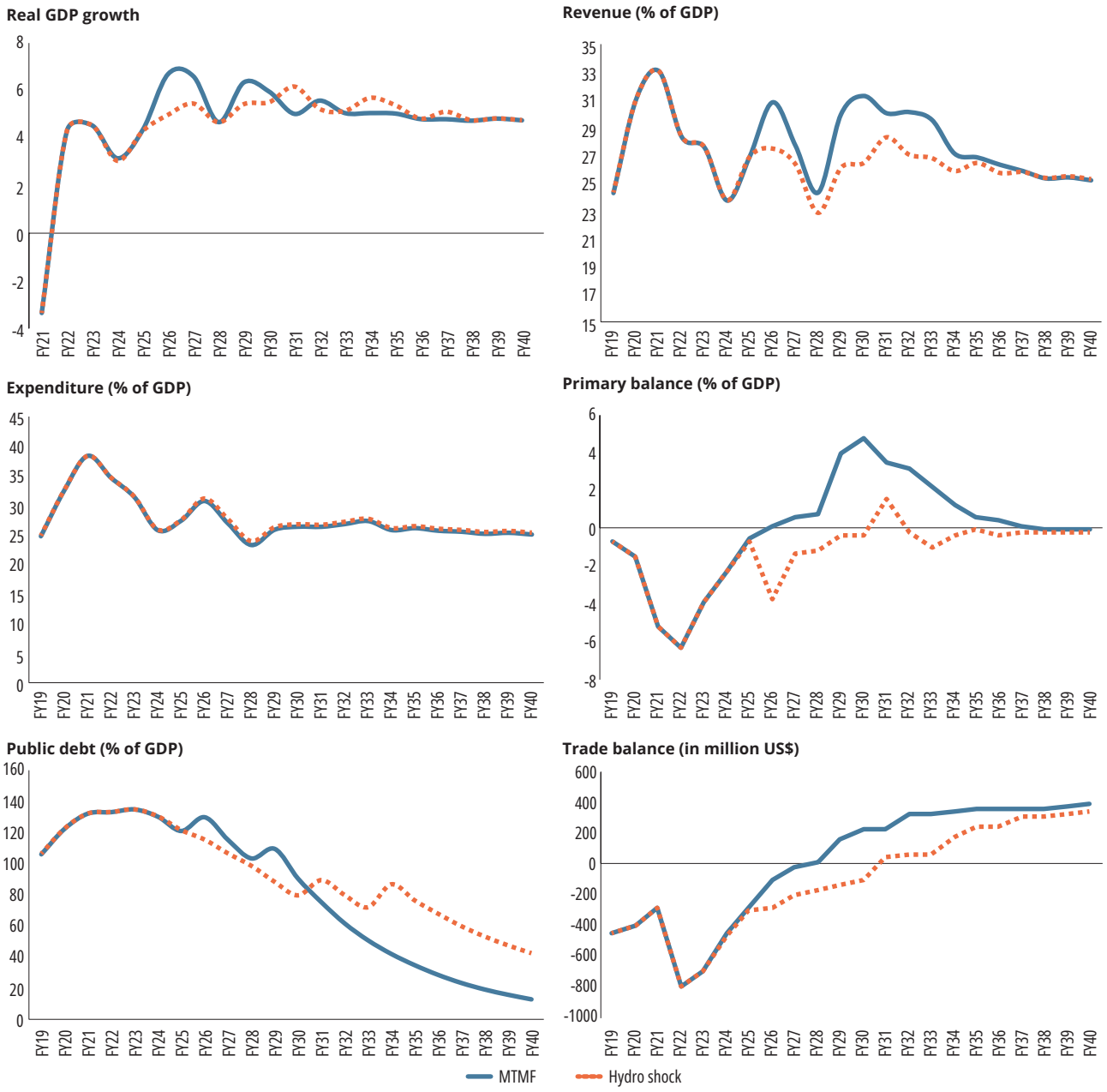


Bindu, Jomori, Begana, and Gamri I and II) is expected to be completed by 2031. Among the larger projects, only the Nikachhu and Punatshangchhu II dams are expected to initiate operations by FY27/28. Any deviation from the planned commissioning date can have significant effect on revenue collection, exports, and other macroeconomic variables. Understanding these deviations can provide important insights for appropriate policy actions in case of any delay in commissioning.

Delaying the projected commissioning dates for the hydropower projects worsens the fiscal position in medium term. The difference between the MTMF and the shock scenario peaks around FY29/30 when revenue collection falls to 26.1 percent of GDP compared to 31.4 percent under the MTMF. With a very limited effect on expenditure, primary balance turns into a deficit of 0.4 percent of GDP from a surplus of 4.8 percent during that time. Consequently, public debt as a share of GDP also rises. The shock delays the expected export earnings from the hydropower sector and reduces the exports as a share of GDP to 29.5 percent from 32.7 percent in FY29/30. As a result, the trade deficit widens by almost US$340 million. The GDP growth rate also falls, with the gap between the two scenarios peaking at 1 percentage points in FY28/29.

In the long term, economic situation improves and the path of the two scenarios converges for most macroeconomic variables. With commissioning of the hydropower projects, revenues start to rise and in the long term it reaches the same level as the MTMF scenario. As a result, the difference between the primary balances of the two scenarios starts to shrink and the ultimately converge around FY39/40. Similarly, the difference between trade balance and GDP growth in the two scenarios shrinks in the long term. Under this scenario, the positive effects of the new hydropower projects are not eliminated, but only delayed, thus resulting in a short and medium-term worsening of the fiscal position, but without a permanent effect. However, because of the widening fiscal deficit in the medium term, the public debt trajectory remains higher than MTMF scenario despite maintaining a downward slope.

Figure 1.15: **Five-year delay in hydropower projects' commissioning date vs. baseline**



These scenario analysis sheds light on the need for fiscal consolidation and for being cautious about materialization of risks. As discussed above, when the outlined fiscal consolidation path is violated and there is a delay in the commissioning dates of the hydropower projects relative to the MTMF assumptions, the macro-fiscal outlook worsens substantially. Though it's not analyzed, it is evident that, in the event of both shocks occurring simultaneously (or combination of any other negative shocks arising from the risks mentioned in section 2), the impact on the economy would be significantly harsher. As such, it would be helpful for Bhutan to prepare accordingly and create fiscal buffers that could protect the country from negative shocks. Improving domestic resource mobilization would give additional fiscal space that would be necessary if the fiscal consolidation is not achieved to the extend envisioned in MTMF. At the same time, public expenditures need to be more efficient and effective to have the maximum effect on economic growth, human development, and standard of living. Given the large size of the SEs, it would be important to govern them efficiently and keep the contingent liabilities stemming from them at curtailed levels. The following chapters discuss these issues in more details.

Reference

Bohn, H. (2008). The sustainability of fiscal policy in the United States. Sustainability of public debt, 15-49.

Bohn, H. (1998). The behavior of US public debt and deficits. the Quarterly Journal of economics, 113(3), 949-963.

Bohn, H. (1995). The sustainability of budget deficits in a stochastic economy. Journal of Money, Credit and Banking, 27(1), 257-271.

Ghosh, A. R., Kim, J. I., Mendoza, E. G., Ostry, J. D., & Qureshi, M. S. (2013). Fiscal fatigue, fiscal space, and debt sustainability in advanced economies. The Economic Journal, 123(566), F4-F30.

Gross National Happiness Commission (2021). *Transformation for Sustainable Development in the 21st Century.* Royal Government of Bhutan.

World Bank (2020a). *Bhutan Systematic Country Diagnostic*. Washington, DC: World Bank.

World Bank (2020b). Bhutan Economic Update: Hydropower Sector Clouds Macroeconomic Prospects. Washington DC: World Bank.

Chapter 2

Enhancing Domestic Resource Mobilization

Domestic resource mobilization is a key element in achieving Bhutan's fiscal consolidation target in the medium term and long-term development aspirations outlined in the 21st century economic roadmap. Along with reducing government expenditure, it is vital to establish resilient revenue collection measures to maintain the fiscal balance target outlined in the Medium-Term Macroeconomic Framework (MTMF) discussed in chapter 1. While Bhutan has made strides in mobilizing resources domestically, its performance has been volatile and heavily reliant on a few major sources. As Bhutan graduates from Least Developed Country (LDC) status, it will likely see a decline in grant funding, making domestic resource mobilization even more important. To achieve sustained progress in the long run, Bhutan could diversify its revenue streams and establish a stable and sustainable revenue base to fund critical infrastructure and services such as education, healthcare, and transportation, as well as foster private sector activities. Achieving these goals will require a modern and efficient tax administration and policies that promote growth while ensuring equitable distribution of resources.

This chapter addresses the role of domestic resource mobilization for Bhutan's future economic progress and potential reforms to achieve its target. It begins by analyzing recent revenue trends in Bhutan, including the composition of revenue and structure of the revenue administration. Given the underperformance of tax collection compared to non-tax sources, the second section delves into Bhutan's tax structure, evaluating its tax efforts, and identifying the challenges associated with different tax components. Finally, the chapter concludes with policy recommendations to address these challenges and enhance domestic resource mobilization.

Section 1: Bhutan's revenue trends and structure

Bhutan's revenue as a percentage of GDP has fluctuated in the last decade but remained relatively high compared to countries with similar income level. Revenue collection is largely driven by the hydropower sector, which contributes significantly to both tax and non-tax revenue collection. External grants, another important source of financing, have been declining, and are expected to decline further following its graduation from the LDC country status. The contribution from the direct taxes without the hydropower sector remained stagnant. Tax collection in Bhutan after FY17/18 has been negatively impacted by several factors, including regulations that allowed for the deferment of tax payments due to the COVID-19 pandemic, a decline in tourism-related taxes, an increase in tax expenditure, and a decline in excise duty collection. Tax collection is also constrained by an outdated tax administration.

Bhutan's revenue performance fluctuated in the last decade but remained relatively high. Due to fluctuation of revenue from hydropower sources and grants, Bhutan's revenue performance remained volatile in the last decade (figure 2.1a). The revenue mobilization was constrained by a slowdown in tax collection in the latter part of the decade. Though indirect taxes mostly drove the decline in tax collection in the post-FY17/18 period (declining by 46 percent), direct taxes also suffered (declining by 17 percent). Despite the instability, Bhutan's revenue collection as a share of GDP has remained relatively high compared to many other peer countries (figure 2.1b).

Figure 2.1a: **Revenue to GDP ratio**

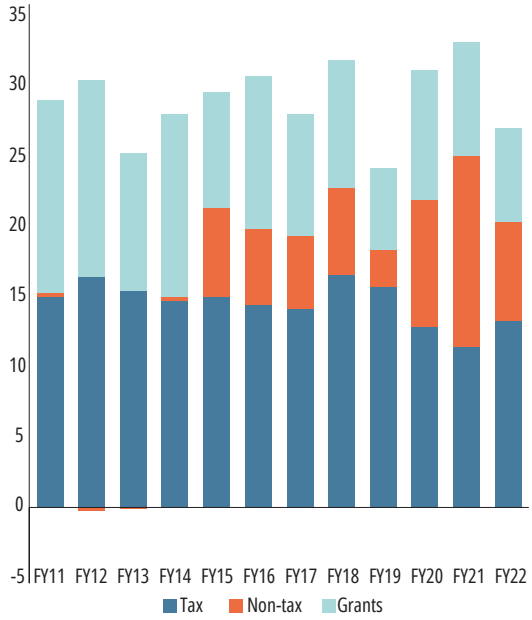
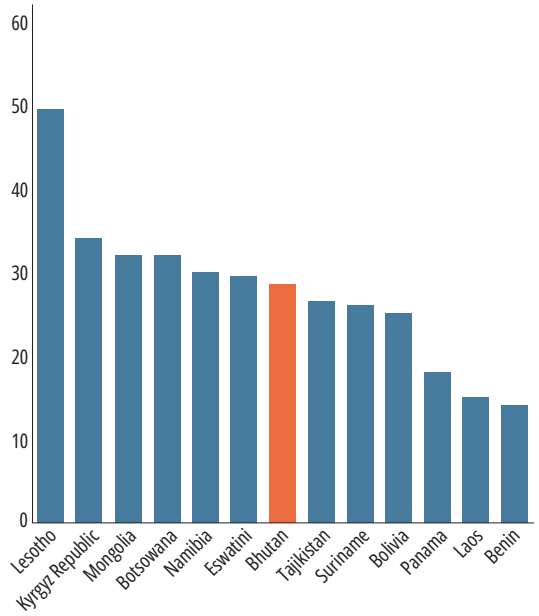


Figure 2.1b: **Revenues (excluding grants) as a share of GDP**



Source: MoF, WDI, staff estimate

1.1 Share of non-tax sources and grants are relatively high

Bhutan's revenue composition is characterized by a significant proportion of non-tax sources and grants. While taxes are an important revenue source for most countries, Bhutan's reliance on non-tax sources and grants reflects its unique economic model. While for most resource rich peer countries, non-tax revenues and grants make up less than 30 percent of total revenue, in Bhutan they comprise more than 50 percent (figure 2.2). Although contributions from grants have moderated, non-tax revenues have risen, compensating for some of the decline.

Figure 2.2: **Share of grants and non-tax revenue in total revenue**

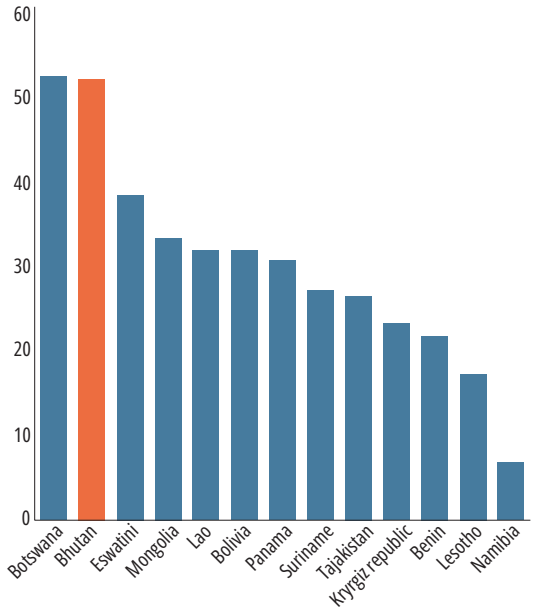
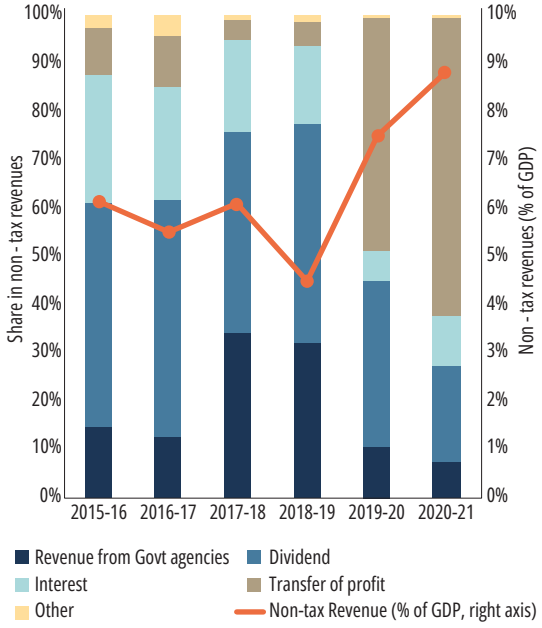


Figure 2.3: **Breakup of non-tax revenues**



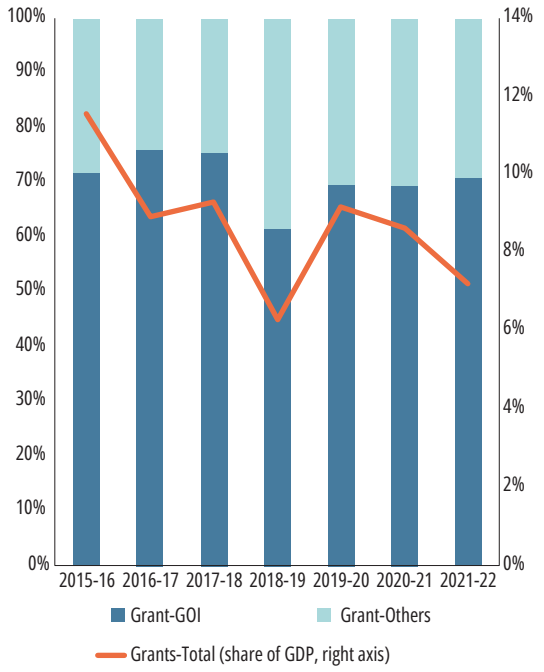
Non-tax revenue earnings are driven by the hydropower sector. In FY20/21, non-tax revenues contributed 42 percent of the revenues and 8.8 percent of GDP in Bhutan. The most important sources of non-tax revenue for Bhutan include dividends and withdrawal of profits from the state enterprises (SEs), particularly in the hydropower sector. In FY19/20 and FY20/21, non-tax revenues grew by 78.1 percent and 13.1 percent, respectively, which helped partially to offset the decline in tax revenues. The increase was mainly due to profit transfers from Mangdechhu hydropower project and Royal Monetary Authority (Ministry of Finance, 2020a). While taxes and dividends are the main channels for the extraction of revenues from SEs, during 2019-2022, government has heavily resorted to transfer of profits (figure 2.3).[24]

Hydropower projects have the potential to contribute more, and the delay in the commissioning of hydropower plants has resulted in significant revenue loss. As against a potential of 23,760 MW hydropower generation capacity, installed capacity of only 2,326 MW has been achieved so far. There are a few projects in the pipeline, including Kholongchhu (600 MW), Punatsangchhu I & II (2 x 1200 MW), and Nikachhu (118 MW). However, there has been a considerable delay in these projects. Due to the delay, Bhutan not only has to pay additional interest on the loan but also forego revenue that could have been raised if the projects were to become operational. Estimated export revenue foregone due to delay in Nikhachhu, Kholongchhu, Punatsangchhu I&II is about Nu 51,400 million per annum considering their combined capacity is 12850 MU and assuming an export price of Nu 4 per unit (same as Mangdecchu project). This translates into tax revenue foregone of about Nu 9.2 billion per annum (considering 60.1 percent net profit margin and 30 percent corporate income tax rate) or about 4.8 percent of GDP.

24 The profit transfer modality is intended to be applied when a hydro project has begun operating and generating revenue but has yet to begin servicing its debt. Once it starts servicing the debt, CIT applies. The profit transfer modality was first applied in FY18/19 to the revenue earned by the Mangdechhu and was subsequently applied in FY19/20, FY20/21 and FY21/22, even though Mangdechu began servicing its debts from FY20/21.

External grants, an important source of financing for Bhutan, have declined from 11. 6 percent of GDP in FY15/16 to 7.2 percent of GDP in FY21/22. The main reason for the decline in external grants is the change in the Government of India (GoI) policy of financing hydropower projects from an initial 60:40 model (60 percent grant and 40 percent loan) to a 30:70 model (30 percent grant and 70 percent loan). Grants from other donor organizations like the World Bank and Asian Development Bank have, on the other hand, increased.

Figure 2.4: **External grants**



Source: National Revenue Reports published by Govt. of Bhutan

1.2 Tax collection is moderating

Both direct and indirect taxes contribute to tax collection. Direct taxes, which include corporate income tax (CIT), business income tax (BIT), personal income tax (PIT), and property taxes (PT), are complemented by indirect taxes such as sales tax (ST), customs duty (CD), excise duty (ED), green tax (GT), and other applicable taxes.[25] The Income Tax Act (2001) provides the legal framework for direct taxation, which applies to corporates, non-corporate businesses, and individuals in Bhutan. Similarly, the Sales Tax, Customs and Excise Act (2000) and the Customs Act (2017) provide the legal framework for indirect taxation, covering sales tax, excise duty on both imported and domestically produced goods, and customs duty on imported goods.

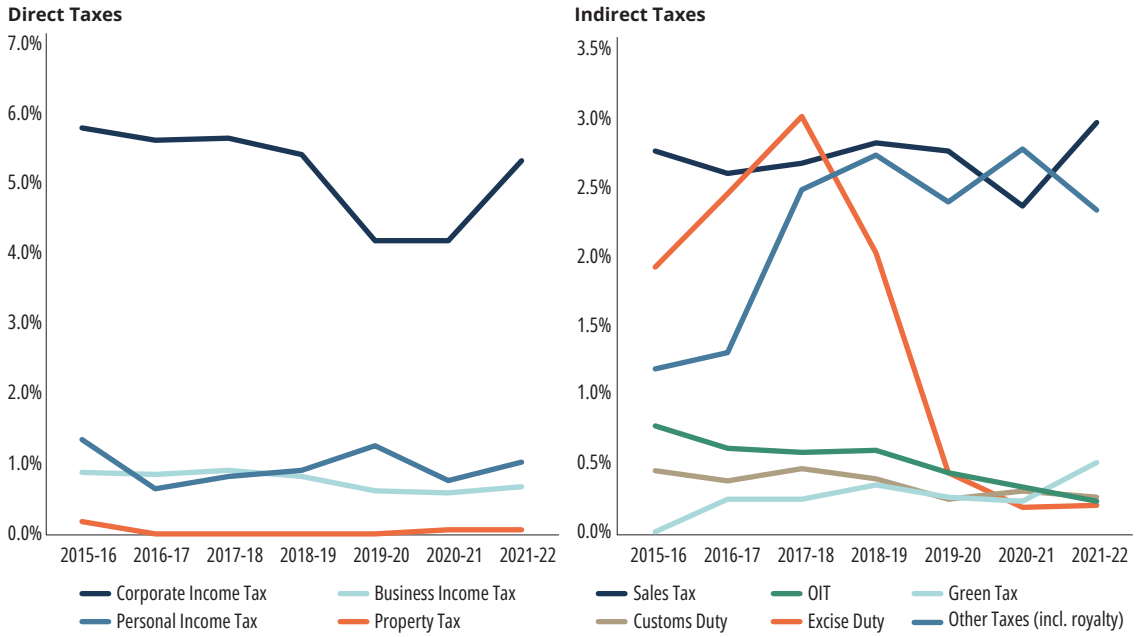
Other than the CIT, which is boosted by the hydropower sector, contributions from other direct taxes remained insignificant (figure 2.5, left panel). Contribution from the PIT didn't pick up and fluctuated around 1 percent of GDP in the last decade (see the next section for more discussion). Contribution from BIT and PT either declined or remained stagnant. The legal frameworks for direct taxation in Bhutan are established by the Income Tax Act of 2001, which has not been updated in recent years. Bhutan's key tax legislation and the structure of different direct and indirect taxes are summarized in the appendix A and B.

Bhutan's State Enterprises (SEs), particularly the SEs in the hydropower sector, make up a significant portion of the country's tax collection. Bhutan's State-owned Enterprises (SEs) contribute about 50 percent of revenues and 80 percent of corporate income tax revenues. There are 38 SEs in Bhutan, out of which 19 are held directly by MoF and 19 through Druk Holding and Investment Limited (DHI). The seven hydropower generation plants under the Druk Green Power Corporation, the biggest subsidiary of DHI, are the major contributors to revenues. Electricity exports by the Chhukha, Kurichhu, Basochhu and Tala hydropower plants constituted 67 percent of total revenues for the Druk Green Power Corporation in 2019. In 2020, the Mangdechhu power plant also became operational and contributed 41 percent of the overall gross revenue.

Tax collection from the non-hydro sectors is mostly dependent on indirect taxes. Sales tax and royalty are the largest contributors to revenues among the sources of indirect taxes (figure 2.5, right panel). Though the sales tax contributes the most, there are room for improvement if the new Goods and Services Tax (GST) is introduced. Bhutan collects significant revenue from the royalty which includes sustainable development fees for international tourists, and royalties on forest products, mines and minerals, and hydropower. Bhutan is known for its mineral potential for dolomite, quartzite, limestone, gypsum, coal, marble, talc and slate, and graphite.

25 Green taxes include taxes on imports of vehicle and petrolium products. Other aplicable taxes include motor vehicle registration, stamp duty, passenger service charges, among others.

Figure 2.5: **Direct and indirect taxes (% of GDP)**



The tax collection in the post-2018 period declined. The decline in CIT and BIT collections can be attributed to the deferment of self-declared tax payments for corporates and businesses in the tourism and allied sectors during the COVID-19 pandemic, as well as tax incentives provided to businesses under the Fiscal Incentives Act. The delay in the commissioning of hydropower projects of Nikhachhu, Kholongchhu, and Punatsangchhu I&II also deprived Bhutan of additional CIT revenues. Restrictions on tourism due to the pandemic led to an estimated revenue loss from tourism revenues and sustainable development fee of about 1 percent of GDP (or 6 percent of revenues) every year during the period 2020-22 (table 2.1). Indirect tax collections have also decreased due to the implementation of the Goods and Services Tax (GST) by the Indian government in 2017, which eliminated excise duty refunds on imports from India for Bhutan. In addition, about 32 percent of sales tax collections are forgone due to sales tax exemptions on the import of motor vehicles, plant and machinery, and cement (Ministry of Finance, 2019).

Table 2.1: **Estimation of revenue loss from tourism during COVID**

Year	GDP	Total tourists	Intl tourists	SDF (USD mn)	SDF (Nu mn)	Out-of-pocket Spend* (Nu mn)	Potential tax** (Nu mn)	Revenue loss (Nu mn)
2014	116,389	133,480	57,934	20.8		3,504	53	
2015	128,535	155,121	48,800	18.7		4,072	61	
2016	145,073	209,570	54,600	20.3		5,501	83	
2017	159,572	254,704	71,417	22.4		6,686	100	
2018	167,340	274,097	71,807	22.6		7,195	108	
2019	178,562	315,599	72,199	23.4		8,284	124	
2020	172,295	29,812	8,944	2.8		783	14	
2020 @	172,295	355,028	78,509	24.1	1,805	9,319	140	1,945
2021 @	187,773	392,532	83,000	24.8	1,863	10,304	155	2,018
2022 @	198,614	430,037	87,490	25.6	2,049	12,041	181	2,230

Note: Staff calculation. Counterfactual scenarios during 2020-22 are marked with @ and are estimated based on historical data until 2019. The revenue loss during 2020-22 is the sum of potential tax on out-of-pocket tourism spends and SDF that could have been collected in the absence of COVID.

* Assuming out-of-pocket spend per tourist of 227 USD per trip by and exchange rate of 75 Nu per USD in 2020-21 and 80 Nu per USD in 2022. ** Assuming net profit of 5 percent on revenues and tax rate of 30 percent

1.3 Tax administration has an outdated organizational structure

Established in 1987 as a single unit adscripted to the Ministry of Finance (MoF) by merging the revenue and customs administrations, Department of Revenue and Customs (DRC) is responsible for administering all domestic taxes and Customs duties in Bhutan. The Director General is appointed by the Royal Civil Service Commission (RCSC) under recommendation from the Minister of Finance and the Finance Secretary. DRC is organized into five divisions following a tax-type model, each headed by a Collector, as follows: (i) Customs and Excise; (ii) Revenue Accounts and Audit; (iii) Revenue Intelligence; (iv) Tax Administration, and (v) Sales Tax. At a regional level DRC is laid out in eight Regional Revenue & Customs Offices (RRCOs) headed by a Regional Director directly reporting to the DG. The staff deployed in the DRC for the year ended 2021-22 is 554 of which 46 are headquarters (HQ) officers and 508 are in the RRCOs who are responsible to oversee tax compliance.

DRC has achieved important progress in providing taxpayers with a range of tools and information to assist them in meeting their obligations, yet there is still space to improve iterative channels with the taxpayer community. Information related to taxpayers' obligations is available for all core taxes. Mainstreamed with internet services and web-based applications, taxpayers and intermediaries access compliance information and self-service features 24/7. Simplified reporting exists for small taxpayers through ad-hoc tax return forms. DRC has an ongoing process to engage with taxpayers and obtain feedback on several issues, but only in an ad hoc manner. However, there is no active involvement of taxpayers or tax intermediaries in testing products and services before release, nor consultations on tax legislative projects. Overall, a more balanced approach toward taxpayer services from the current enforcement-based scope is likely to strength trust with the taxpayer community towards cooperative compliance equilibrium.

Moreover, the tax administration reflects an operational framework shaped by the country's narrow-based tax system and a nascent business development. With a heavy reliance on the hydro power sector for a large share of public revenues, the burden from broad-based taxes falls upon a relatively small number of large taxpayers, while a critical mass of medium and small businesses is endowed with poor or nonexistent record keeping capacity to fulfill tax obligations. Partly in response to the tax policy system in place and taxpayers' composition landscape, the tax system relies heavily on withholding mechanisms and on an extensive presumptive-based tax regime. Such a system is administered by the Department of Revenue and Customs (DRC) using simple, yet low performing business processes under an outdated organizational structure.

Unlike modern tax administrations organized by functions and taxpayer segments, DRC operates mostly following a tax-type organizational model, deterring its potential to attain higher levels of efficiency and equity. This type of organization entails the coexistence of separate multifunctional and independent departments within tax administration. Key administration processes, such as registration, auditing, payment, and collection, are carried out mostly separately by type of tax (income, customs, excises and sales). From the taxpayer's perspective, duplication of functions for single processes translates into higher compliance costs when dealing with different departments to fulfill obligations, undergo audits and other enforcement actions, and receive services, among others. Furthermore, multiple and independent criteria on the application of different tax-type regulations often result in an uneven treatment of taxpayers, raising their compliance costs and deterring trust in the tax administration.

1.4 Maintaining the status-quo could lead to fiscal unsustainability

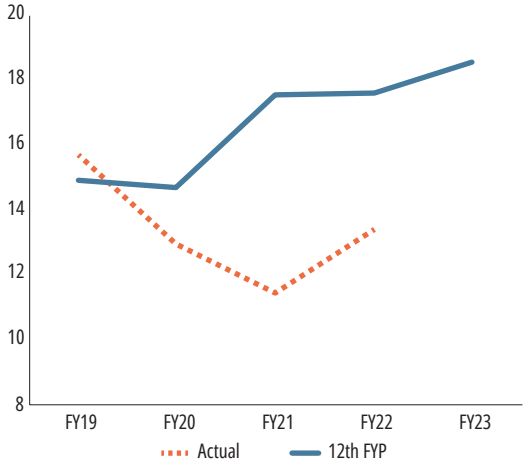
Bhutan's effort to achieve its projected revenue collection as per its 12th FYP (2019-23) is derailed. The total financial resource for the plan period is estimated at Nu. 280.7 billion, of which 78 percent is projected to be mobilized domestically and the remaining from external grants. Of the domestic revenue, the contribution of tax revenues is projected to be about 69 percent, with the balance coming from non-tax sources. However, as of FY21/22, there is a significant gap of about 4.2 percentage points between the projected and actual tax as a share of GDP (figure 2.6).

Bhutan's revenue collection is constrained by several factors. Firstly, the country has a small private sector and a large agriculture sector that is primarily substance-based, making it difficult to tax these industries effectively. Secondly, the country's tax policies and administration are suboptimal and need to be reformed, which has been delayed. There are a number of tax exemptions in place, which further complicates the tax collection process. Finally, the tax administration in Bhutan lacks the capacity to effectively enforce tax policies. These structural and policy-related challenges have contributed

to Bhutan's poor performance in revenue collection (see the following section for more details).

Without any reforms, the upcoming challenges may lead to fiscal unsustainability. Bhutan is heavily reliant on external funding to implement large-scale infrastructure projects, and its expected LDC graduation in 2023 is likely to pose challenge in terms of access to concessional loans. LDC graduation is also expected to result in declining overseas development assistance (ODA), which accounts for approximately 30 percent of total grant receipts. Though the grant from India is not expected to be affected by the LDC status, it is subject to uncertainty, as they are renegotiated as part of the FYP cycle and are tied to the RGoB's ability to execute spending under the FYPs. Bhutan will need to raise a significant amount of additional domestic revenues to bridge the financing gap as a part of its fiscal consolidation efforts to maintain fiscal sustainability.

Figure 2.6: Bhutan's actual tax collection vs projected tax collection as per 12th FYP (% of GDP)



Section 2: A deep dive into Bhutan's tax structure

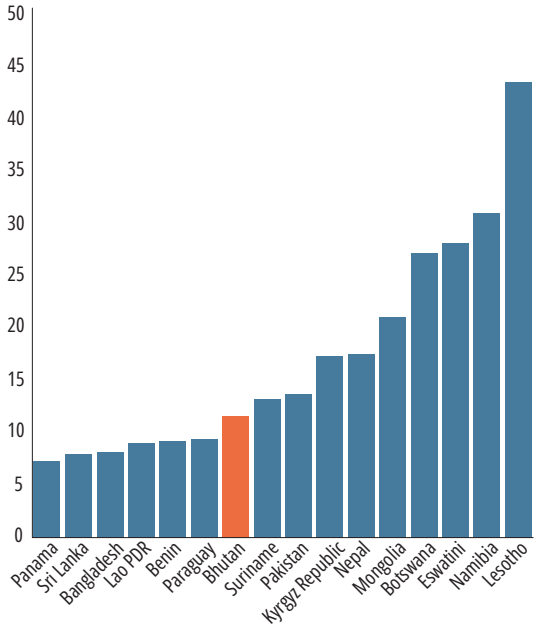
Bhutan's tax efforts are not commensurate with its level of economic development, institutional features, and social attainments. Personal income tax revenues stagnated in recent years as the tax base remained narrow. Due to the modest size of the private sector and the predominance of state-owned enterprises, the corporate income tax policy has little effect on the private sector businesses. Moreover, most of the small and medium enterprises are out of the tax net. Though the overall tax policies are progressive, tax incentives to businesses are regressive in nature, narrowing the tax base further. The tax system lacks an effective compliance monitoring system and relies heavily on accurate reporting of information by taxpayers. The rate of filing, payment, and recording of taxes is low. The country also does not have a large taxpayer's unit, and efforts to tax additional sources of income, such as capital gains from the sale of immovable property, remain limited. However, despite being a carbon negative country, Bhutan has a green tax and recently increased its sustainable development fee (SDF).

2.1 Tax efforts are low

As a result of the recent deceleration in tax collections, Bhutan's tax effort lags behind most of its neighbors and peers.[26] During 2010-2014, Bhutan collected more taxes as a share of GDP than Nepal, Pakistan, Sri Lanka, and Bangladesh. However, as a result of a steady decline in Bhutan's performance in recent years due to the reasons mentioned above, Nepal and Pakistan now collect more taxes (as a percentage of GDP) than Bhutan. Among other structural and aspirational peers, Bhutan's tax performance is better than only Benin, Lao PDR, Panama, and Paraguay.

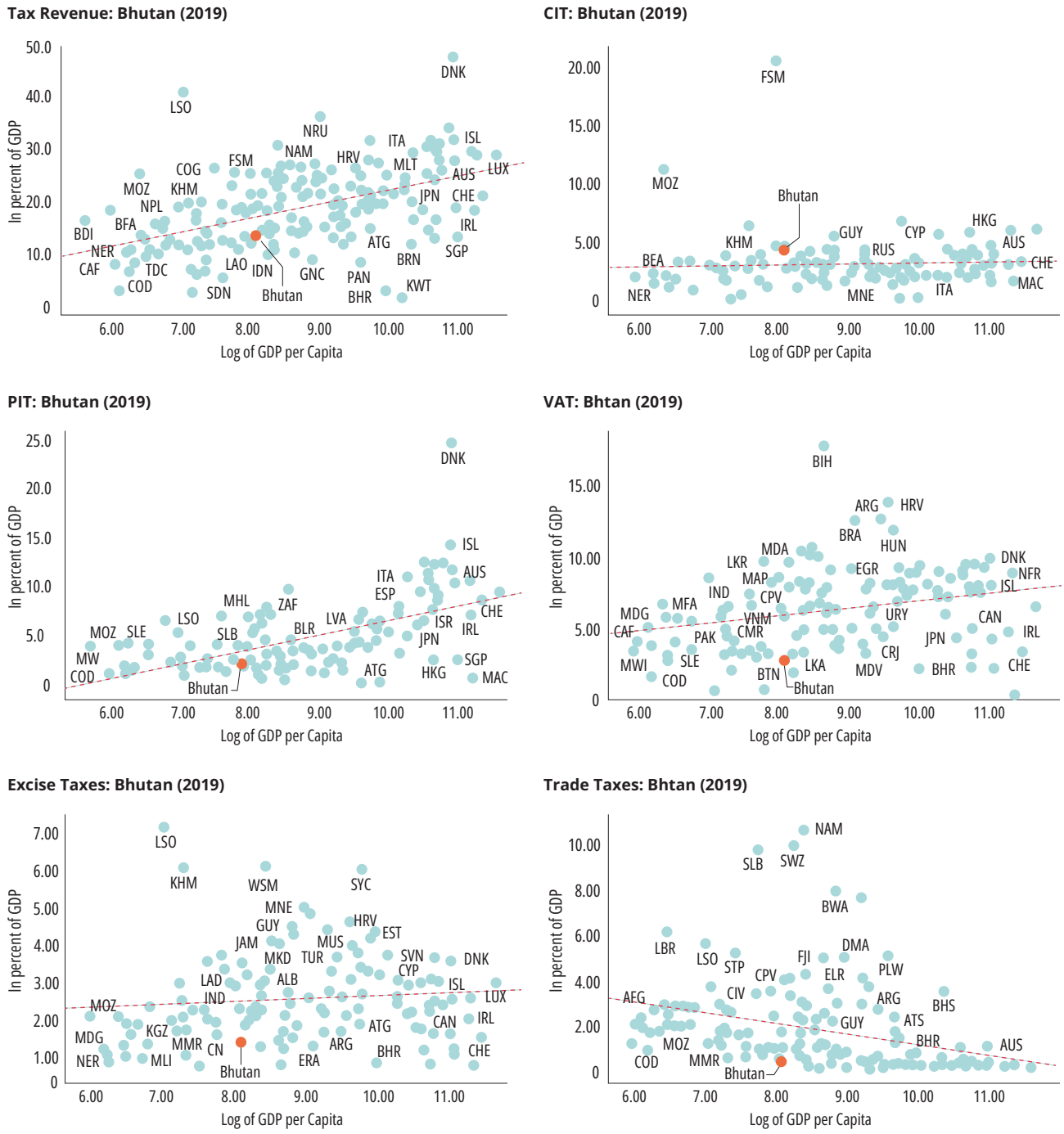
Bhutan collects lower taxes (as a percent of GDP) as compared to other countries with a similar level of per capita GDP. Countries at varying levels of development generate widely different tax revenue as percent of GDP. That said, with rising income per capita tax revenue tends to increase (figure 2.8a). The overall tax collection for Bhutan is lower than what it could be based on the level of Bhutan's per capita GDP. This low tax collection is driven by underperformance in PIT, Sales tax, Excise, and Customs Duty as compared to other countries with a similar level of per capita GDP (figure 2.8c-2.8f). However, Bhutan collects 5 percent of GDP as corporate taxes on average, which is higher than most countries of the world regardless of the income level (figure 2.8b).

Figure 2.7: **Tax to GDP ratio (2021)**



26 Though it's difficult to identify peer countries for a unique economy like Bhutan, attempts were made to select the peer countries based on a data-driven approach that determines the similarity between different countries. Based on this Mongolia, Eswatini, Lao PDR, Kyrgyz Republic, Benin, Lesotho, and Nepal were identified as structural peers, while Panama, Botswana, Suriname, Turkmenistan, Paraguay, Namibia were identified as aspirational peers.

Figure 2.8: **Country Benchmarking-Bhutan Tax Revenues (All taxes)**



Source: World Bank Revenue Dashboard.

Bhutan's overall tax collections and tax efforts are not commensurate with its level of economic development, institutional features, and social attainments. A more meaningful comparison of the generation of tax revenue should consider more characteristics than just the level of per capita income. To assess the tax efforts, one can compare the actual tax revenue generation to one predicted by a model estimated for a large set of countries. Following Khwaja and Iyer (2014) and World Bank (2020), we estimate such a model considering different economic, institutional, demographic, and structural indicators (see appendix D for methodology and list of variables). Bhutan's tax revenue generation falls short of the cross-country

Figure 2.9: **Tax effort (Actual/Predicted*100)**

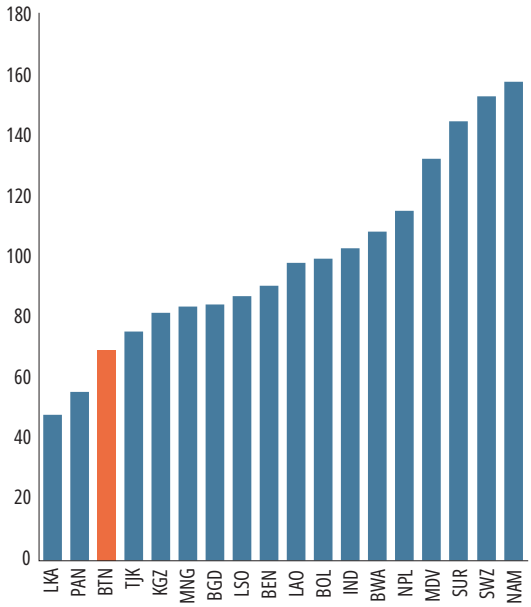
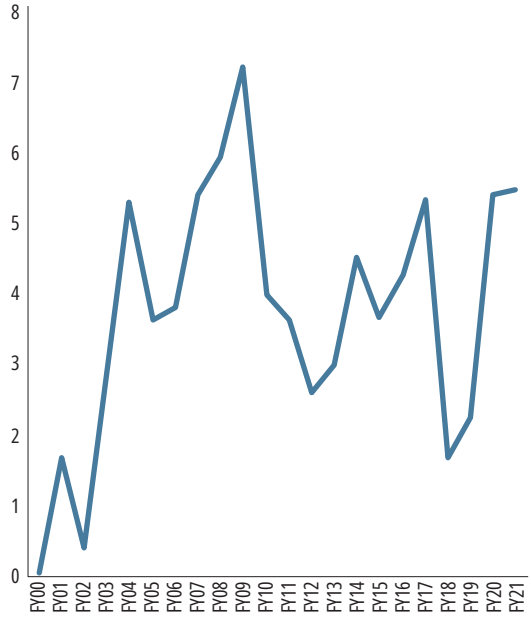


Figure 2.10: **Tax gap (% of GDP)**



regression prediction, indicating potential for improvement. If Bhutan were as successful as the average country (given its current characteristics), it would generate approximately 5 percent of GDP in additional tax revenue. The tax effort for Bhutan is 70 percent, lower than most of its structural and aspirational peers (Figure 2.9).

Based on a tax gap analysis, Bhutan could have increased its total tax collections by 5.4 percent of GDP in FY20/21, leading to a potential tax to GDP ratio of around 17 percent of GDP. The tax gap was driven by taxes on trade and transactions and taxes on goods and services.[27] Taxes on trade and transactions yield revenues that are around 2.7 percent of GDP lower than what can be achieved, mostly due to the existing free trade agreement with India.[28] For taxes on goods and services, the deficiency is around 2 percent of GDP. On analyzing longer time series data, it appears that Bhutan's tax gap has fluctuated considerably (figure 2.10). The total tax gap peaked at 7.3 percent of GDP in 2009 immediately after the Global Financial Crisis and rose again recently to reach around 5 percent of GDP following the COVID pandemic. This fluctuation was mostly driven by taxes on goods and services, while the tax gap on trade and transactions gap stayed around the same magnitude. This may indicate that the latter has policy underpinnings while the former is more related to the business cycle.

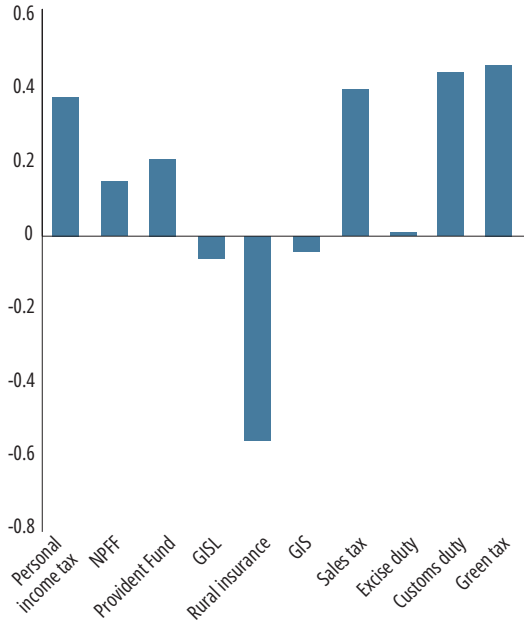
2.2 Taxes are progressive[29]

The tax system in Bhutan imposes a disproportionate burden on households in the top 10 percent of income earners. This is mainly because personal income taxes have a relatively high exemption threshold, and sales taxes apply only to a selected number of goods that are also more likely to be consumed by richer households. Both direct and indirect taxes represent a higher share of income for households in the top deciles, whereas their impact is small for most others. Households in the top 20 percent are net payers under Bhutan's fiscal system, with most of the payment occurring through indirect taxes and only a modest amount through direct taxes. The incidence of indirect taxes falls predominantly on households in the top two deciles.

27 The analysis is based on IMFs GFS dataset where total tax consists of i) taxes on goods and services ii) taxes on trade and transactions iii) taxes on incomes, and iv) taxes on property.
28 About 90 percent of Bhutan's imports come from India.
29 The analysis in this section is drawn from Baquero et al. (2022).

Most taxes and contributions are progressive. The Kakwani index can be used to show whether a particular intervention is redistributive.[30] For Bhutan, most taxes and contributions are progressive and equalizing, as indicated by the positive value of the Kakwani index (figure 2.11). Among the direct taxes, the personal income tax is the most progressive of all due to the recent changes in the income tax threshold (see box 2.1). Contributory social security schemes such as the Provident Fund and NPFF are also progressive, though the magnitude is smaller than direct taxes. Indirect taxes are uniformly progressive, which could be attributed to at least two reasons. First, the tax base under the existing sales tax system is small. Second, consumption patterns vary distinctively across the income distribution such that the tax burden falls disproportionately on households that are better off. For example, the green tax is levied on vehicles that are only affordable to richer households. Most taxes and contributions are pro-poor as they are disproportionately concentrated among the better-off. Unsurprisingly, this is not the case with rural insurance, given that the rural (urban) population to whom this is applicable is more likely to fall in the lower (upper) deciles.

Figure 2.11: Progressivity of direct and indirect taxes (Kakwani Index)



Source: Baquero et al. (2022)

2.3 Direct taxes have a narrow base

Personal income tax (PIT) revenues remained stagnant during the period 2015-2022. In 2016, PIT revenues were cut by half due to major policy changes in personal income tax regime introduced by the "Revised Taxes and Levies Act of Bhutan 2016", which raised the basic exemption threshold from Nu. 100,000 to Nu. 200,000, deduction against education expenses from Nu.50,000 per child per year to Nu.150,000 per child per year, and exempted interest income from fixed deposits. PIT revenue recovered to 1.3 percent of GDP in FY18/19 before falling again to 0.8 percent of GDP in FY19/20 when the basic exemption threshold was further raised from Nu 200,000 to Nu 300,000 by the Income Tax (Amendment) Act of Bhutan 2020 with effect from 1st Jan 2020. PIT collections recovered slightly in FY21/22 (1 percent of GDP).

With a lower PIT threshold of Nu 180,000, there is a potential to cover an additional population of 85,832 and distribute the burden of taxes over a larger tax base. Bhutan's PIT taxpayer covers about 8 percent of its population, 21 percent of its working population, and 70 percent of the working population in urban areas. As per the current PIT policy, only the working population earning more than Nu 300,000 is covered under taxation. However, if the threshold is lowered to Nu 180,000, the taxpayer base can potentially be more than doubled. A larger tax base that covers a significant proportion of the working population provides opportunities to achieve higher progressivity with a lower revenue neutral rate in each income bracket. It can also enable policymakers to use the tax system for providing targeted direct cash transfers through policies like refundable tax credits.

Individual taxpayers are not taxed on capital gains from the sale of immovable property such as land or buildings, or movable property such as shares or securities. Capital gains from the sale of immovable property are also not taxed in the case of companies and businesses, although there is a provision to tax gains from the sale of shares. In 2020, the Property Ownership Transfer Tax Act was introduced to levy a tax on the sale value of land, buildings or motor vehicles. However, the income from the increase in the value of an asset is not explicitly taxed. Most countries have a provision to tax such income, though several countries do so at a lower rate than the maximum marginal rate. Taxation of capital gains from the transfer of immovable property can broaden the PIT tax base and help raise additional tax revenues.

30 The Kakwani index is defined as the difference between the concentration coefficient of the tax and the Gini for market income. Concentration coefficient summarizes the concentration curve of a tax or transfer. The curve shows the cumulative percentage of households, ranked from poor to rich by market income, against the cumulative percentage of the tax paid or transfer received by centile. The computation of the Kakwani index for each intervention is shown in the appendix E.

Box 2.1: Effect of changes in income tax thresholds

The RGoB adopted a new income tax schedule in 2020. With the aim to provide tax relief to lower-income households, the government implemented a revision to the personal income tax schedule in 2020. The exemption threshold was raised from Nu 200,000 to Nu 300,0000, which is expected to result in about 31,000 fewer taxpayers (World Bank, 2020). A new maximum marginal tax rate of 30 percent was introduced, and the tax brackets were adjusted (table 2.2).

Table 2.2: **Income tax thresholds**

Income tax rate	Previous income thresholds	New income thresholds
0 percent	200,000	300,000
10 percent	200,001 – 250,000	300,001 – 400,000
15 percent	250,001 – 500,000	400,001 – 650,000
20 percent	500,001 – 1,000,000	650,001 – 1,000,000
25 percent	Above 1,000,000	1000,001 - 1,500,000
30 percent		Above 1,500,000

Simulation results indicate the new tax schedule is more progressive and has reduced poverty marginally in FY20/21. Simulations are conducted for FY20/21 while controlling for the impact of COVID-19 pandemic in the previous year.[31] Direct taxes have become slightly more progressive, as measured by the Kakwani index which increased from 0.38 to 0.42 after the PIT reform. The burden of taxes has fallen throughout the distribution and has become slightly more concentrated among richer households (table 2.3). The results also suggest that poverty has declined with the new PIT schedule (combined with assumptions on income growth). Households in the bottom two deciles, as before the reform, pay near-zero income taxes. The inequality-reducing effect is smaller as the Gini index based on different income definitions are estimated to be slightly higher than before in most cases (table 2.4).

Table 2.3: **Concentration of old and new PIT schedule**

	Poorest	2	3	4	5	6	7	8	9	Richest
Old PIT schedule	0%	0%	0.3%	0.5%	1.6%	2.9%	5.0%	9.6%	18.7%	61.3%
New PIT schedule	0%	0%	0.1%	0.3%	0.9%	2.0%	3.8%	8.2%	17.4%	67.3%

Table 2.4: **Simulated impact of PIT reforms on poverty and inequality**

		Gross market income plus pension /1	Disposable income /2	Consumable income /3	Final income /4
Poverty	2017 baseline	8.2	8.2	9.3	
($3.20/day, %)	2021 simulation	7.2	7.2	8.7	
Gini index	2017 baseline	38.7	37.8	36.1	31.3
	2021 simulation	38.7	37.9	36.3	31.4

1/ Market income plus pension: market income is the income before any fiscal intervention such as taxes and government transfers. It includes labor income (e.g., wages and salaries), income from capital (e.g., rents, interests, and dividends), income from private and public pensions, and private transfers (e.g., remittances).
2/ Disposable income is obtained by adding direct transfers and subtracting direct taxes and social security contributions from market income.
3/ Consumable income subtracts indirect taxes from disposable income and adds indirect subsidies. Indirect taxes include green taxes, custom duties, sales taxes, and excise taxes in Bhutan.
4/ Final income is constructed by adding in-kind transfers to consumable income. In Bhutan, these mainly comprise education and health benefits.
Source: Baquero et al. (2022)

31 The impact of the pandemic is modeled in a distribution-neutral manner, by applying the GDP growth forecasts to the full distribution of household consumption. Since the survey was conducted in 2017, to simulate the impact of these new taxes and COVID-19 on households' welfare in 2021, we first nowcast household income and consumption using a growth rate of real GDP multiplied by an income-GDP elasticity and inflation, assuming household income grows at the same rate across the entire distribution, and then apply the new PIT rules on the nowcasted income.

The impact of the CIT policies on the private sector is limited due to its relatively small size. As highlighted in section 1.2, SEs are the largest contributor to CIT. Seven out of the top ten companies in the country are SEs and contribute to over 85 percent of CIT revenues. These SEs, including DHI and Druk Green Power Corporation Limited, have monopolistic power in all economic sectors and operate in a non-competitive business environment, relying on government pressure rather than market forces. They dominate sectors such as manufacturing, energy, finance, communication, transportation, real estate, construction, and trade, while private companies only compete with SEs in a few sectors such as steel, cement, and mining. Of the 417 companies in Bhutan, 270 are non-operational, and many of the remaining non-SE companies are either unprofitable or have low profits. This limited market space for private companies means that the CIT policy has limited impact on the private sector and there is a lack of equal opportunities between SEs and private firms in terms of taxation, cost of capital, and regulations.

Small and medium enterprises are mostly out of the tax net. Small and medium enterprises (SMEs), including the cottage industries, make up the majority of businesses in Bhutan. However, around 10 percent of the businesses which are classified as large or medium, contribute more than 50 percent of BIT revenues. While all businesses, including sole proprietorship or partnership firms, are required to register with the Ministry of Economic Affairs and obtain a trade license or permit to operate, only large and medium businesses are required to maintain books of accounts and file annual accounts. In contrast, small and micro units do not file annual accounts, and their tax liabilities are determined through estimated assessment. SMEs located in rural areas are also exempt from paying business income tax under the Fiscal Incentives Act of Bhutan 2017.

RGoB implemented the Property Tax Act 2022 with a view to modernizing the property taxation system and enhancing progressivity based on the principles of equity and fairness (RGoB, 2022). The new Act is expected increase the collection of property tax. However, biggest challenges would be related to its proper implementation, which would require (i) establishment of a cadaster, which is regularly updated and maintained, (ii) fair assessment of tax base, which is often a challenge if the valuation agency does not keep up with the market, and (iii) collection, which is a challenge in many countries due to liquidation of arrears through amnesty schemes. A streamlined dispute resolution process could make the process more efficient.

The lack of an operational Large Taxpayer Unit (LTU) hinders the effectiveness of the DRC in controlling compliance. With a heavy reliance on the hydro power sector for a large share of public revenues, the burden from broad-based taxes falls upon a relatively small number of large taxpayers. Many tax administrations in transition and developing countries have established LTUs as part of reform efforts to improve revenue collection. LTUs have been instrumental in achieving higher levels of compliance from higher-income economic sectors when properly implemented, as they provide specialized management of large taxpayers' services and obligations. This not only enhances compliance and increases sustainable collection levels but can also improve functions across the tax administration. Studies on 24 developing and transition countries indicate that after establishing a LTU, their tax compliance improved, and the stock of arrears reduced. (Benon et al, 2002). The establishment of LTUs, along with the shift towards functional-based organizations from tax-type, has been depicted as two of the most salient organizational reforms in tax administrations from a historical perspective.

2.4 There are rooms to improve indirect tax collections

In Bhutan, contributions of sales tax at the point of entry have declined in recent times. Sales tax in Bhutan is either collected at the point of sale (POS) or at the point of entry (POE). Most goods imported from India and other countries are subjected to sales tax at POE and, prior to 2017, their contribution to overall sales tax has been higher than sales tax collected at POS. In 2017, for the first time, the sales tax collected at the POE dropped below POS sales tax (figure 2.12). This shift in the share of contribution from the two different types of sales tax can be attributed to: i) the introduction of the Goods and Services Tax (GST) in India, which reduced the value of imported goods from India, and ii) the shift in the collection of sales tax on motor vehicles from the point of entry to the point of sale. As shown in the tax gap analysis of section 2.1, taxes on goods and services make up large part of Bhutan's overall tax gap.

There are distortions associated with sales tax, excise and customs duty, and a new Goods and Services Tax (GST) Act has been approved address some of these issues. Sales tax and customs duty paid on goods at POE can have a cascading effect on businesses if such goods are not covered by sales tax at POS. Implementation of a comprehensive GST that replaces sales tax and excise duty is expected to: (i) eliminate cascading of taxes on businesses and promote ease of doing business

Figure 2.12: Revenue collection from sales tax at POE and POS

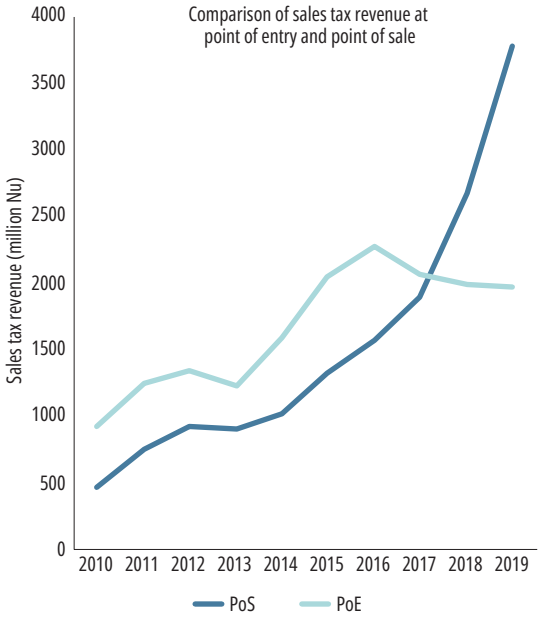
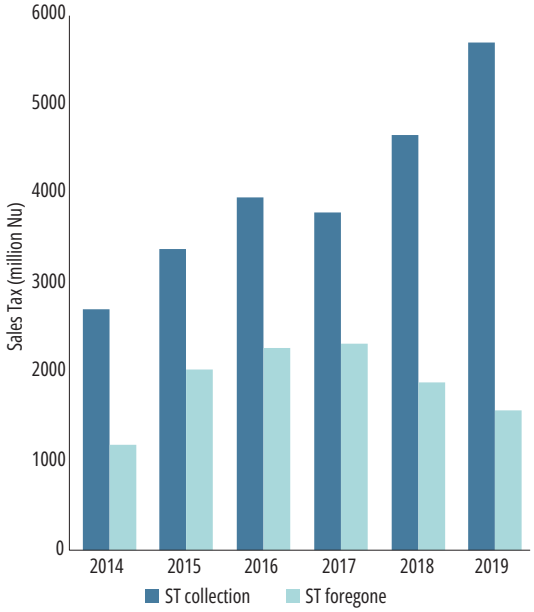


Figure 2.13: Sales tax foregone 2014-2019



Source: Bhutan Sales Tax Performance Indicator report, 2019

(ii) enhance the tax base as the input tax credit mechanism starts working; (iii) remove economic distortions through the introduction of a single rate; and (iv) ease tax compliance by introducing electronic tax return submission and payment based on self-assessment. Preliminary analysis suggests the revenue boost from the GST could amount to about 0.4 percent of GDP initially, and to about 2 percent of GDP in the medium term.[32] However, the implementation of the GST Act is facing challenges (see box 2.2).

A significant proportion of sales tax revenue is foregone due to exemptions. Most domestically produced goods and services are not subject to sales tax, and only a few selected items are taxed at the point of sale. In 2019, sales tax forgone amounted to 27 percent of total sales tax collection (figure 2.13). The bulk of the revenue foregone (about 48 percent) was due to the exemption of sales tax on the import of motor vehicles by civil servants, diplomats, the public transport sector, and the tourism sector. Approximately 31 percent of the revenue foregone was due to exemptions on the import of plant and machinery and raw materials by the manufacturing sector. Import of cement by hydropower companies is also exempt from sales tax. Bhutan does not collect customs duty on 84 percent of its imports that originate from India due to the existing free trade agreement with India. More on tax expenditures are discussed in section 2.6.

GST Act provides several exemptions, including supply of electricity, which narrows the GST tax base. Bhutan is an electricity surplus country and provides an implicit subsidy to its residents by providing electricity at a discount on export price. If the policy intent is to provide relief to the poor households especially in the rural areas, this policy needs better targeting. Currently, richer households are disproportionately benefiting from this policy as their electricity consumption is much higher. There are opportunities to review the electricity tariffs in rural and urban areas and align them based on 'beneficiary-pays' principle.

32 Bhutan: 2022 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Bhutan

Box 2.2: Goods and Services Tax (GST) in Bhutan

Bhutan enacted the Goods and Services Tax (GST) Act, 2020 to replace sales tax, and excise duty. Some salient features of Goods and Service Tax in Bhutan include:

- It will replace the multiple indirect taxes namely the sales tax and excise duty with a single 'standard rate' of 7 percent applicable to taxable domestically produced and imported goods and services, except those that are either exempted or zero rated.
- Businesses with turnover of Nu. 5 million and above to be required to register for collection. GST will however be exempted on basic food, medicines, energy-saving and IT goods; along with health, education, financial, information technology and agriculture services.
- In addition to the GST, luxury goods, sin goods and environmentally harmful items will be subject to Excise Equalization Tax (EET) at four rates ranging from 20 percent to 100 percent. With this, higher taxes will be imposed on junk food and unhealthy items including alcohol and tobacco, among others.

The planned introduction of the GST in replacement of the current ST structure has triggered the need to implement a new integrated IT revenue system. In operation since 2015 the current Revenue Management and Information System (RAMIS), has proven insufficient to provide a uniform and stable platform to enable desired outcomes for key processes to all types of revenue sources, including taxpayer registration, payments, and refunds. Among other limitations, RAMIS does not provide a single taxpayer identification number for all tax obligations and features subpar functionalities for the proper operation of the following functionalities: risk management, compliance monitoring, arrears management, large scale automated crosschecking of data to verify information reported in tax declarations. Furthermore, the current IT platform for revenue management is not comprehensive enough to support the administration of all sources of revenue. For example, the revenue collected at port of import is managed by an offline standalone Revenue Management System.

Implementation of the GST Act 2020 has been deferred indefinitely till the software component 'Bhutan Integrated Taxation System (BITS)' is ready. Cognizant of RAMIS' limitations hindering enforcement and service performance, DRC embarked on a phased-out modernization process entailing the design and procurement of new applications and system platform. DRC embarked on the development of the Bhutan Integrated Taxation System (BITS) and Electronic Customs Management System (eCMS), envisioned to provide a comprehensive and unified platform for all sources of revenue encompassing both payment and disbursement features. Due to challenges on the design and procurement of the BITS, the government is pursuing a bridge IT project - Bhutan Integrated Revenue Management System (BIRMS) - aimed at providing modern architecture to integrate an array of tax functions, mostly back office. However, the implementation of GST is likely to be delayed as the development and deployment of the IT structure might take about 2 more years. A possible implementation strategy is discussed in box 2.5.

2.5 Private sector investment faces challenges due to a complex tax structure

Bhutan's tax system is dominated by the presence of large SEs, which provide very little space to the private sector. The tax system, therefore, discharges dual responsibilities of extracting revenues from SEs and promoting private sector participation. Consequently, many tax incentives are provided to the non-SE businesses. However, these policies have not only narrowed the tax base but also created inequities as most of these incentives are availed by a few large firms. Most businesses are small, which necessitates an approach that balances the revenue needs with ease of compliance.

From competitive neutrality point of view, it is necessary to ensure that the SEs and private sector are provided a level playing field as far as taxation, cost of capital and regulations are concerned. There is very limited market space for private sector companies as most of the commercially oriented subsidiaries of DHI are monopolies with very few competitors in the private sector. They operate in the all the major sectors like manufacturing, energy, financial services, communication and transportation, real estate and construction and trading. Steel, cement, and mining are some of the few sectors where private sector companies compete with SEs.

Sole proprietors with income from different sources are taxed at different rates, which creates arbitrage opportunities and incentives for tax evasion. In Bhutan, a sole proprietor with income from both business and other sources, such as wages, rentals, and dividends, is subject to different tax rates. Business income is taxed at a flat rate of 30 percent, while income from other sources is subject to a progressive rate schedule. This creates an incentive for business owners to classify a portion of their business income as labor income in order to take advantage of lower tax rates. It also leads to regressivity, as the business income of a low-income individual is taxed at the same rate as that of a high-income or wealthy individual. Furthermore, data from audits of large and medium businesses shows that 38 percent of BIT collections in 2020 were due to audit adjustments, indicating a significant compliance gap and potential tax evasion.

BIT collection from small and micro businesses in urban areas is made based on a complex estimated assessment. Estimated assessment considers factors like purchase and sales details (export and import) and industrial ratios, a tax return filed for the last three years, similar business units within the vicinity, tax paid in the previous year plus an appropriate increase, tax deducted at source information, and any other information obtained from third parties. Currently, tax officials make the estimated assessment by physically visiting shops. To improve the efficiency of BIT collection, a mobile app called BIT Estimated Tax App (BETA) was launched in February 2021. However, tax authorities are facing several challenges in the uptake of BETA, including a lack of connectivity in remote areas, and reluctance on the part of taxpayers to provide information related to sales and purchases in the app.

2.6 Environmental taxes are small but rising

Bhutan introduced a sustainable development fee (SDF) to curb the negative externalities of tourism. Following the policy of high-value low-impact tourism, Bhutan introduced SDF of USD 200 per person per night for international tourists through the Tourism Levy Act 2022. This is a significant increase from the previous policy, which required only 65 USD per night for international tourists. This increase in SDF may not only make tourists opt for other alternative destinations for their holidays but also impact the average length of trip and average spending. Therefore, Bhutan is expected to achieve a significant reduction in tourist inflow. An SDF for regional tourists were also introduced in 2021. However, the final impact of SDF on revenue and the environment is uncertain.

Bhutan charges a green tax to discourage the use of fossil fuels. Being conscious of its environmental sustainability, Bhutan has proactively adopted green fiscal policies that consider the cost of negative externalities associated with the use of fossil fuels. In 2012, 'Green Tax' was introduced for the imports of motor vehicles and petroleum products into Bhutan. In contrast to other countries, petroleum products are not subsidized and subject to customs duties, sales tax, and green tax. These taxes impose an implicit cost on carbon emissions from the use of fossil fuels and evoke a behavioral response from consumers through price rises.

However, the use of fossil fuels is rising, and it is important to be cautious about the negative impact of climate change. Despite being one of the three carbon negative countries in the world, Bhutan is susceptible to the adverse impacts of climate change. Climate-induced changes to glacial-fed rivers threaten to reduce hydropower production and government revenues. Currently, a significant part of revenues is spent on the import of petroleum products, which is growing at a rapid pace due to urbanization and industrial development. Coal provides a significant input to Bhutan's energy demand from fossil fuels. Coal is mostly imported and is not subject to sales tax or green tax, which amounts to an implicit subsidy. Fossil fuel combustion in Bhutan generates significant externalities that could be internalized through the tax system.

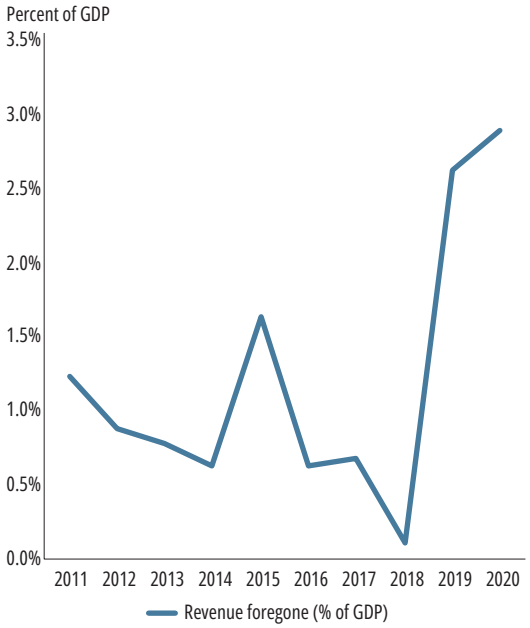
2.7 Bhutan's tax expenditure has grown sharply

Bhutan's tax expenditure averaged around 0.8 percent of GDP during the 2008-2018 period. In an attempt to foster private sector development, generate employment, and stimulate economic growth, Bhutan introduced Fiscal Incentives (FI) Act 2010, to incentivize new businesses that commenced operations during the period 2010-2015. Tax expenditure due to FI Act, 2010 for the period 2008-2018 is estimated at Nu 10.1 billion, which was on average 0.8 percent of GDP for the period. About half of this tax expenditure went to the manufacturing sector, while service and tourism sectors were the beneficiary of the rest. Bulk of these incentives is exemption of customs duty (71 percent) and sales tax (25 percent). Income tax incentives contribute to only 3 percent of total tax expenditure.

The new FI Act introduced in 2017 contributed to a sharp increase in tax expenditure from 0.7 percent of GDP in 2017 to 2.9 percent in 2020 (figure 2.14). Fiscal Incentives Act, 2017 contributed to a sharp growth in tax expenditure. In 2020, tax expenditure was 2.9 percent of GDP owing mainly to customs duty (58 percent), sales tax (42 percent), and green tax (0.2 percent) foregone on imports, including import of motor vehicles, plant and machinery and raw materials.

There are rooms to make the personal income tax expenditures more progressive. Currently, there are several tax expenditures, including deductions for education allowances (that can reach up to Nu 650,000 per taxpayer), exemptions related to interest income, and deductions against dividend income (box 2.3). Unlike the overall tax structure, the tax expenditures are likely to be less progressive as many of these deductions are enjoyed by the richer households. Given the narrow PIT base, streamlining this tax expenditure will help in achieving progressivity. It will also allow the lowering of the maximum marginal rate and re-distribute the tax burden over a larger tax base.

Figure 2.14: Revenue foregone by Bhutan due to tax expenditure



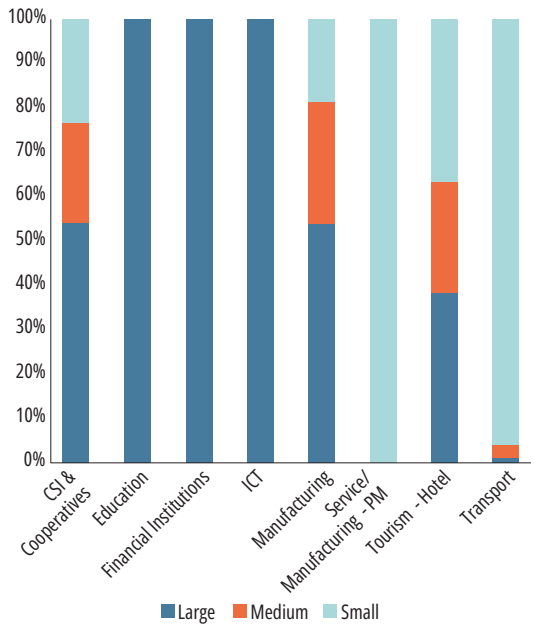
Tax incentives that are available to businesses narrow the tax base and are regressive as they provide relatively more benefit to large businesses. The distribution of revenue foregone in FY20/21 due to direct business tax incentives reveals that most of these benefits were claimed by large and medium businesses in the manufacturing, financial, and tourism sectors (figure 2.15). Similarly, indirect tax incentives were also predominantly claimed by large businesses in the manufacturing, CSI & Cooperatives, and tourism sectors, with the exception of the transport sector, where small businesses claimed a higher percentage of incentives. Additionally, the different tax rates for CIT (25 percent for non-SEs) and BIT (30 percent) create market distortions by providing an opportunity for businesses to shift their income from entities liable for BIT to corporates liable for CIT, particularly between related entities.

Box 2.3: Personal income tax – Exemptions and deductions

- Income from interest is exempt
- Income from the sale of cash crop is exempt
- 20 percent standard deduction on rental income
- Nu 30,000 standard deduction on dividend income
- Interest payments on housing loans are allowed as a deduction without any áximum limit
- Education allowances up to Nu 350,000 per child
- Self-education allowance up to Nu 350,000 per child
- Sponsored children's education expenses up to Nu 350,000 per child allowed as deduction
- Life insurance premium allowed as deduction
- Donations up to 5 percent of total gross income are allowed as a deduction

FI Act, 2021 has several major changes, including the requirement on the part of businesses to obtain pre-approval certificate for availing tax incentives from the tax authorities. FI Act 2021, which was introduced to reduce tax expenditure and plug certain loopholes in the FI Act, 2017, continues to provide profit-based incentives such as tax holidays, reduced tax rates, and tax exemptions (box 2.4). It also introduces additional conditions for availing tax incentives. One of the major changes requires the taxpayer to file an application, which will be examined to determine whether the taxpayer has a qualifying income from qualifying activity under an approved business. Once approved, authorities will grant a certificate of approval specifying the applicable tax rate, qualifying period, qualifying activity, and qualifying income.

Figure 2.15: **Share of tax incentives used by business size in different sectors**



Source: Firm level revenue foregone data (2020) of top taxpayers received from DRC, Bhutan

The requirement on the part of businesses to obtain a certificate of approval to become eligible for tax incentives is a discretionary policy rather than a rules-based policy. The Act provides discretion to authorities to approve or reject an application and grant a certificate of approval on a case-to-case basis. It is likely to introduce red-tapes, increase compliance burden, and run contrary to the goal of promoting ease-of-doing-business. International practice suggests that businesses should be able to self-determine their eligibility based on transparent provisions of the law and the rules and claim the incentives in the return filed by them in due course. Authorities are then free to audit cases if claims are suspected to be false. It would also be administratively more efficient for tax authorities to examine a few selected cases during audit (based on risk management strategy) rather than pre-approving all the businesses. A comparative analysis of the FI Act 2017 and 2021 is given in the appendix.

Box 2.4: Tax incentives under the Fiscal Incentive Act 2021

Some of the major tax incentives introduced by the FI Act 2021 include –

- Extending sales tax and customs duty exemption from hydroelectric, renewable energy and construction projects to all sectors
- Allowing full expensing in high priority sectors namely (1) Agriculture and Renewable Natural Resources (RNR), (2) Business Infrastructure Development, (3) Cooperatives, (4) Creative Industry, (5) Education, applicable to educational institutions with International Accreditation, (6) Energy, excluding hydroelectric projects; and (7) Tourism, applicable to hotels only.
- Replacing tax rebate, ST and CD exemption and tax holidays to waste management sector with investment allowance and concessionary tax rates.
- Additionality condition introduced for tax deduction to incentivize employment of Bhutanese nationals
- Tax holidays to mining sectors withdrawn and replaced with tax holidays to high priority sectors
- Tax holidays to education and health sectors replaced with concessionary rate
- Tax holidays to transport businesses replaced with ST and CD exemptions on equipment purchase.

Literature on tax incentives suggests that expenditure-based incentives have a higher likelihood of promoting additional investment. By reducing the cost of investing, they may make the marginal investment profitable when this would not otherwise be the case in the absence of the incentive. On the other hand, income-based tax incentives provide tax relief based on secured earnings, benefiting only already profitable projects, but do not result in additional profitable projects. Therefore, income-based incentives may have less influence on investment activities.

2.8 Tax administration requires modernization[33]

Tax systems rely heavily on complete and accurate reporting of information by taxpayers in tax declarations. While DRC has in place appropriate desk and field audit programs to assess taxpayer's declarations for all core taxes using both direct and indirect methodologies, there are several gaps that needs to be addressed. Among others the following weaknesses stand out: i) assessment programs are not fully risk based and not weighted towards large taxpayers or high risk sectors; ii) tax returns do not undergo an audit at least once every two years regardless of risk; iii) there is insufficient emphasis on assessments of large taxpayers; iv) self-declaration of estimated assessment are not routinely checked; v) the impact of desk and field assessments on compliance levels is not routinely evaluated; and, vi) there are no sector specific audit manuals, neither quality review procedures.

Bhutan lacks a good compliance monitoring system and has low rates of filing, payment, and recording of taxes. The DRC has been working to implement a risk management framework with the help of international technical assistance. However, it still lacks a good compliance monitoring system to make sure taxpayers follow the rules. Intelligence gathering and risk analysis are in place, but not as part of a long-term plan. Plans to improve compliance only address a limited range of risks, and do not cover all taxes, taxpayer groups, or taxpayer obligations. The process for detecting non-filers is not fully automated, and there are no documented procedures for follow-up actions. As a result, filing, payment, and recording of taxes is below standard, and voluntary compliance is low. To improve compliance, reforms regarding better use of service and enforcement tools, a strong IT platform, a results framework, and a long-term compliance program would be helpful.

Electronic tax filing and payment options are available to taxpayers, but they are often underutilized. This shortcoming stands out as a major constraint to achieve higher efficiency levels for revenue administration and lower compliance costs to individuals and businesses. As DRC moves forward on its automation efforts, a decisive take up of electronic filing and payment across the taxpayer population is needed. Specifically, an effective management strategy requires to set up specific goals for the electronic filing and payment for all taxes equivalent to 75 percent, and 90 percent for large taxpayers.

Currently there are no risk-based criteria to verify requests for ST refunds, nor special treatment granted for low-risk taxpayers for an expedited resolution. DRC reviews each single request for ST refund submitted by exempt organizations of taxes paid on their imports, without providing any preferential treatment based on risk criteria. Moving forward, a revamped refunds mechanism based on good international practice needs to consider the following operational features: i) review of GST refund claims by taxpayers against risk criteria based on proved compliance history; ii) undertaking pre-refund audits for high-risk cases, and post-refund verifications for lower-risk ones; iii) payment of legitimate refunds or offsetting credits against other tax liabilities within a 30 day timeframe; iv) payment of interest in cases when legitimate refunds are delayed; and, v) undertake annual forecasting and budgeting of GST refunds to ensure sufficient funds when refunds are legitimate requested by the taxpayer.

Debt collection practices lacks a proper tax arrears management framework. Manageable levels of tax debts are achievable in those cases where a proper management of an arrears inventory profiled by value, age, and collectability is in place. Historical data set on tax arrears stock for the last three years needs to be constructed, prioritized by risk criteria (value, probability of collection given taxpayer's payment profile), allocating cases for DRC collection through the IT system. Prompt write off mechanisms of uncollectible arrears need also to be in place. Data are available from the company registrar, vehicle licensing authority, and (on a case-by-case basis) from banks and Bhutan's anti-money laundering authority. Bulk data from Customs, company registrar and on vehicle licensing are analyzed and matched against taxpayer records using ad-hoc methods as automated matching tools are not available.

33 This section uses the findings of the recent Tax Administration Diagnostic Assessment Tool (TADAT) for Bhutan

Section 3: Policy recommendations

To achieve the fiscal consolidation envisioned in chapter 1, Bhutan would need to maintain robust revenue collection in the short term. At the same time, it would be important to conduct the necessary reforms in tax policy and tax administration in the medium to long run to reduce dependency on hydropower and ensure continued revenue collection following the expected decline in grants following the LDC graduation. Table 2.5 summarizes the possible policy actions for Bhutan for enhanced domestic resource mobilization, and their expected timeframe, potential impact on revenue collection, and the expected difficulty level in materializing them. It will also be useful to be cognizance of the lesson learned from the previous reform attempts (box 2.6).

Table 2.5: Summary of policy recommendations

	Timeframe	Potential impact	Difficulty level
Tax policy			
Reduce the PIT threshold and rate and adjust tax exemptions	Short	High	High
Introduce capital gains tax on sale of immovable properties	Short	Moderate	Moderate
Conduct cost benefit analysis for the existing tax expenditures and streamline tax expenditures accordingly.	Medium to long	High	High
Introduce sales tax on sale of electricity to industrial and household consumers	Short	Moderate	High
Simplify the taxation regime for small businesses	Medium to long	Moderate	Moderate
Tax administration			
Develop and implement a timebound action plan to implement the GST	Short	High	Moderate
Establish a large taxpayer office	Short	Moderate	Moderate
Use a single taxpayer identification number (TIN) instead of different numbers	Short	Moderate	High

Tax Policy

Reduce the PIT threshold and rate and adjust tax exemptions

The current PIT basic exemption threshold of NPR 300,000 narrows the tax base to only about 65,000 individual taxpayers. It is therefore recommended that the threshold be lowered to NPR 100,000 and reduce the maximum marginal rate to 25 percent. This will cover an additional 85,832 people and distribute the burden of taxes over a larger base. Expanding the tax base will allow policymakers to target subsidies through the tax system, such as through refundable tax credits. Certain tax incentives that disproportionately benefit higher income taxpayers, such as education allowance and exemptions for interest and dividend income, could be reviewed. To provide relief to low-income taxpayers, targeted incentives such as refundable tax credits per child (up to two children) could be considered for those below a certain income threshold.

Introduce capital gains tax on sale of immovable properties

The Property Ownership Transfer Tax Act, 2020 introduced a tax on the sale of immovable properties and motor vehicles, similar to stamp duty on asset transfers. However, it does not tax the gain earned by the taxpayer from an increase in the value of the asset over time. Currently, capital gains taxation on shares and securities only applies to companies, not businesses and individuals. It is recommended that capital gains from shares and securities also be taxed for businesses and individuals. In addition to generating additional revenue, these measures will improve the progressivity of the tax system as capital income is often concentrated among higher income groups.

Streamline tax expenditures to make them more efficient

To broaden the tax base and reduce the cost of compliance and administration, it would be helpful to change or remove the inefficient and inequitable incentives in the FI Act 2021. Tax expenditures related to incentives based on conditions that are amenable to gaming by taxpayers and hard to monitor by tax authorities merit special attention. A cost benefit analysis could be conducted to streamline tax expenditures. A set of measurable outcome indicators could be identified for each tax incentive along with a baseline against which the achievement is eventually measured. For instance, if sales tax or customs duty exemption is provided on import of equipment or machinery with the objective to encourage capital investment in the economy, data related to additional investment, output, and employment generated attributable to such exemption should be collected in the tax return. Such analysis will help the policymakers in assessing the effectiveness of tax incentives. The requirement of obtaining the certificate of approval from the Ministry as a pre-condition for a taxpayer to claim tax incentives could be removed. The grant of such certificate by Ministry would require pre-processing of applications by tax authorities on a case-to-case basis. This is not only inefficient but also creates opportunities for misuse of discretionary power. As per best practice, it is important for the policy to be transparent and allow businesses to determine whether they are eligible or not, based on guidelines or rules for eligibility stipulated in the law. The information in relation to eligibility and claims can be filed along with the regular tax return.

Introduce sales tax on sale of electricity to industrial and household consumers

Although, Bhutan is an electricity surplus country, it may consider levying a basic minimum sales tax in line with the "beneficiary-pays" principle, with exemptions for households and businesses in certain locations (i.e., rural and remote areas) and usage (i.e., if the usage is below a threshold). This will generate additional revenue and align with Bhutan's environmental consciousness, which discourages wasteful consumption. The domestic tariff for electricity supply, which is currently heavily subsidized, may also be revised to expand the base for sales tax. Additionally, the exemption on electricity supply under the goods and services tax may be withdrawn for the same reasons.

Simplify the taxation regime for small businesses

Only 1 percent of the total registered businesses account for about 60 percent of business income tax revenues. Most companies and businesses are small and do not contribute significantly to revenues, but tax administration still focuses on assessing them. Therefore, for businesses with turnover of less than Nu 5 million (same as the threshold decided for GST registration), it would be useful to have a turnover tax, without the ability to deduct expenses. This will reduce the compliance burden and administrative costs for these businesses, and it is expected to improve voluntary compliance and reduce incentives for tax evasion. To promote investment, a reduced tax rate may be considered in certain remote areas where conducting business is difficult.

Tax administration

Develop and implement a timebound action plan to implement the GST

Parallel to the design and implementation of the new IT architecture over the mid and long term, which envisions to unfold a sequenced roll out of tax systems encompassing RAMIS, BIRMS, eCMS and BITS, a gradual and phased out timebound action plan to implement the GST emerges as a viable option (box 2.5).

Box 2.5: GST implementation strategy

Managed by a PMU and steered by an internal reform committee, an implementation strategy could take into consideration the following aspects, among others:

- Establishment of a communication channel with the taxpayer community to disseminate GST objectives and receive feedback from stakeholders from the private sector on ways to improve its implementation.
- Design and operation of the LTO along the functional-based business processes needs for the implementation of the GST, mostly to be levied to large taxpayers during its early stages of implementation concomitant with a registration threshold (i.e. GST threshold policy could be designed as key benchmark to define large taxpayers).
- Enhancement of own risk management framework to encompass a substantial increase of GST net credit position of taxpayers, especially exporters, and device a refund policy and a strengthened operational framework based on automatic and post-audit strategies for low-risk refund claims, and a 30-day resolution timeline for the rest.
- Implementation of a new simplified regime encompassing both BIT and GST (for taxpayers below registration threshold).
- Development of IT capacity through RAMIS / BIRMS to roll out an e-invoice system as building block for the introduction of a GST pre-filing declaration for large taxpayers at the time of introduction of the BITS platform in the long term.
- Before full implementation of the GST regime, allow a test run period whereby mock GST filling is requested from taxpayers to ensure the administration system is sound enough to support early stages of statutory obligation, taxpayers are familiar with new procedures and GST staff readiness.

Establish a large taxpayer office

While DRC has been considering such implementation, along with the reorganization along functional lines, the short-term introduction of a LTO could serve as an organizational catalyst to tickle down improvements on tax administration service and enforcement activities. In case properly set up, the LTO could integrate functionalities for the administration of direct and indirect taxes under a single operational umbrella, even if the rest of the DRC current organizational structure remains the same. For example, the LTO can help to promote sharing of data and coordination among service and enforcement actions across the current silos-based operational structure. Furthermore, large taxpayers could benefit from a single-window framework servicing all tax obligations on a standardized and predictable manner.

Merge different numbers into a unique taxpayer identification number (TIN)

For the envisioned functional-type organizational model, the merge of different numbers into a unique taxpayer identification number (TIN) will facilitate routine identification of taxpayers for administrative actions (e.g., detection of non-filers), third party information reporting and data matching (e.g., data matching in respect of interest earned on bank deposits, dividends paid by public companies, contract income, and asset sales), and exchange of information with other government agencies. Currently, a taxpayer payment number (TPN) is used as the primary registration number for each tax obligation (CIT, BIT or ST) under which the taxpayer (individual or corporation) is liable.

Box 2.6: Lessons learned from WB supported tax administration reform

- **Substantial enhancement of tax administration effectiveness requires fundamental organizational change.** Revenue administration reforms entail the implementation of substantial organizational reforms with the potential to disrupt operations at field formation. Extensive consultations with stakeholders using a bottom-up participatory process, constructive dialogue, and adequate risk mitigation measures at the outset are needed. Reorganization action plans need to be phased carefully over a realistic period, while adequate safeguards and ongoing monitoring to facilitate stakeholders buy-in need to be actively undertaken through an effective communications and outreach program.

- **Revenue targets could be an unsuitable performance outcome indicator for revenue administration reform projects.** The use of revenue targets as major development outcome key performance indicators (KPI) makes it difficult to track pure revenue administration performance, dislocates the input-output-outcome result chain, and could introduce wrong incentives for revenue agency's managers to engage in ad-hoc and short-term revenue measures, rather than mid- and long-term institutional building reforms. Tax gap (difference between potential and observed outcome, both at the overall tax system level or by type of functions, taxpayers, or taxes) is a measure better suited to gauge a tax agency's performance.

- **Tax policy and other legal reforms could be identified and prepared in advance of project implementation if expected increases in tax administration effectiveness and tax collection are to be achieved.** In case tax policy reforms are not introduced in a timely and effective way, mitigating measures could be in place along with the needed political and institutional commitment to carry them out. Tax policy and other legal changes need to be taken in parallel with institutional capacity development to achieve full benefits from planned reforms.

- **A broader and continued policy dialogue on tax reform is needed in parallel to increase likelihood of success of revenue administration reforms**. Supervision of investment projects can quickly get bogged down in the minutiae of implementation issues, diverting attention from a broader policy dialogue on fundamental tax reform that is critical to ensure that project outputs are converted into sustainable results.

- **To be effective, newly deployed IT systems could be accompanied by requisite operating business procedures and continuous training, following a solid strategy set out at preparation stage with a holistic view on both operational and institutional reform.** There also needs to be sufficient incentives for staff to adopt new procedures, through the development and implementation of new business processes that the staff can be trained in and evaluated against. As part of the project monitoring system, it is important to ensure that when new IT applications are introduced in the field: (a) they are field tested, (b) adequate training in new business processes is provided to users, (c) adopting the new procedures is identified in strategic plans, and (d) rewards or recognition of staff for adopting new processes are in place.

- **Technical assistance can be effective in supporting tax administration reform if the revenue agency has full ownership of the program, and the TA is well designed and provided in a timely manner.** Technical assistance support contributes to better dialog with counterparts, keeps track of project's ongoing activities, and helps in redirecting assistance to meet capacity gaps and maintain commitment as needed, especially when implementation issues prove more challenging than anticipated.

- **Complex and far-reaching tax administration reform efforts are better carried out when led by a Project Management Unit (PMU).** Comprised by trained specialists and placed within a proper governance structure within the tax administration, the establishment of sound PMUs are required to ensure the overall coordination of project activities including monitoring and evaluation, disbursement, procurement, and financial management. PMUs take on a fundamental role to ensure multiple reform initiatives are

References

Benon, O.P,Baer, K, and and Juan R. (2002). *Improving Large Taxpayers' Compliance: A Review of Country Experience.* International Monetary Fund. Washington, DC.

Department of Revenue and Customs (2020). *National Revenue Report Fiscal Year 2019-20.* Ministry of Finance, Royal Government of Bhutan. Thimpu, Bhutan.

European Union (2022). *Multi-Annual Indicative Programme 2021-27.* European Union, Brussels.

International Monetary Fund (2014). *Options For Tax Rrforms In Bhutan.* Washington, DC: IMF.

International Monetary Fund (2022). *Staff Report For The 2022 Article IV Consultation.* Washington, DC: IMF.

Jenkins, G. P. (1986). Taxation and State-Owned Enterprises. *Harvard Institute for International Development*.

Khwaja, M. S., & Iyer, I. (2014). Revenue potential, tax space, and tax gap: a comparative analysis. World Bank Policy Research Working Paper 6868.

Joseph Amankwah-Amoah, Z. K. (2021). *COVID-19 and digitalization: The great acceleration.* Journal of Business Research, 136, 602-611

Ministry of Finance. (2020). *Bhutan State Enterprise Report: Annual Performance Review 2020.* Investment and Corporate Governance Division. Thimpu, Bhutan.

Ministry of Finance, Bhutan. (2010-19). *National Revenue Report.* Ministry of Finance, Royal Government of Bhutan. Thimpu, Bhutan.

Ministry of Finance, Bhutan. (2013-21). *Annual Financial Statments.* Department of Public Accounts, Royal Government of Bhutan. Thimpu, Bhutan.

Organisation for Economic Co-operation and Development (2018). *Ownership and governance of State-Owned Enterprises: a compendium of national practices.* Paris: OECD.

Rao, M. a. (2009). Fiscal Space for achieving the millennium development goals and implementing the tenth plan in Bhutan. *Economic and Political Weekly*, pp.51-59.

Razzaque, M. (2020). *Graduation of Bhutan from the group of least developed countries.* United Nations ESCAP, Macroeconomic Policy and Financing for Development Division.

Sales Tax Division, Department of Revenue and Customs. (2019). *Performance Indicator Report 2019.* Ministry of Finance, Royal Government of Bhutan. Thimpu, Bhutan.

Tourism Council of Bhutan. (2020). *Bhutan Tourism Monitor.* Planning and Research Services. Royal Government of Bhutan. Thimpu, Bhutan.

Vernon, N. P. (2021). *Still not getting energy prices right: A global and country update of fossil fuel subsidies.* International Monetary Fund.Wahington, DC.

World Bank (2020). The Gambia Public Expenditure Review: Creating Fiscal Space. Washington, DC: World Bank

Chapter 3

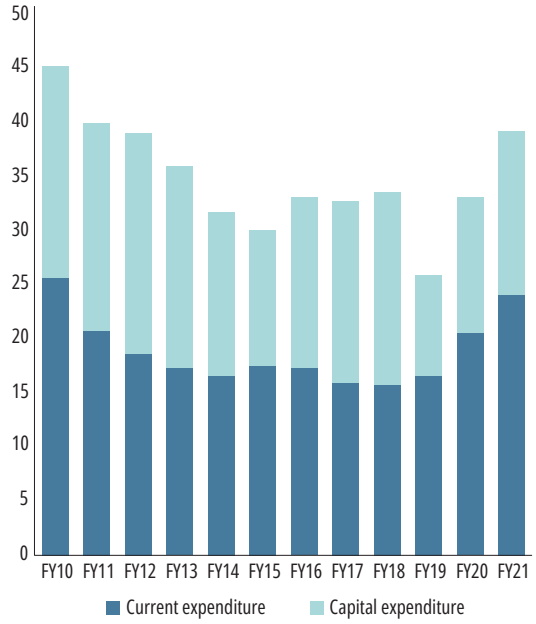
Striving for Productive and Efficient Public Expenditure

Efficient government spending will be crucial in achieving Bhutan's long-term development goals. To reach the ambitious goals outlined in the 21st Century Economic Roadmap, the spending needs are expected to increase. However, with growing fiscal deficit and elevated exposure to fiscal risks (discussed in chapter 1), fiscal sustainability remains a concern. In this context, in addition to revenue enhancements (discussed in chapter 2), the identification of spending efficiency improvements presents a complementary avenue to free resources for spending on priority sectors. Going forward, fiscal sustainability would require the government to consolidate expenditure in the short term, including bringing down capital expenditure within 12 percent of GDP as per the Medium-Term Macro Framework (MTMF) discussed in chapter 1, compared to the 15 percent envisioned under the 12th FYP. Given the need to understand Bhutan's public expenditure for future economic progress, this chapter analyzes i) Bhutan's expenditure trends, ii) the relationship between government spending and economic growth, iii) rigidity of government expenditure, iv) spatial allocation of resources, v) outcome and efficiency for different categories of spendings, vi) public environmental and gender expenditures, and vii) public investment management. Finally, it provides some policy recommendations.

Section 1: Expenditure trends

Bhutan's total expenditure as a share of GDP has been volatile in the last decade. Total expenditure declined gradually from 45.4 percent of GDP in FY09/10 to 25.9 percent of GDP in FY18/19, before rising again to 39.3 percent in FY20/21. Share of current expenditure fluctuated between 15-26 percent of GDP, while capital expenditure ranged between 9-20 percent of GDP (figure 3.1). The high expenditure volatility is due to Bhutan's fiscal rule that states that current expenditures should be met with domestic revenue, which, in turn, fluctuated due to its dependency on the hydropower sector. The large scale of hydropower projects generated large fluctuations in Bhutan's economy. The capital expenditure exhibits volatility that is closely correlated with the five-year plans, wherein the expenditure is typically lower in the initial years and gradually increases towards the end of the plan. External concessional loans remain the largest source of financing for public investment and its contribution has increased since 2011, averaging 66.7 percent of the total investments (Ministry of Finance, 2021a).

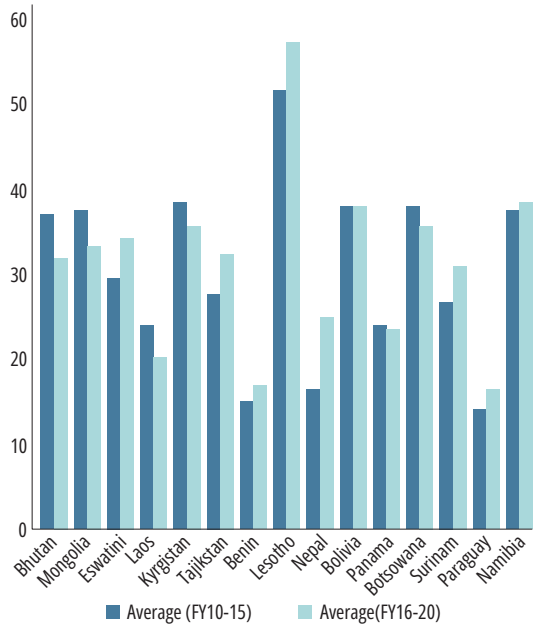
Figure 3.1: **Total expenditure as share of GDP (%)**



Source: Ministry of Finance (MoF)

Bhutan's total expenditure as a percentage of GDP is at par with its peers, driven by a relatively higher share of capital expenditure. Despite a decline in the FY15/16-FY19/20 period, Bhutan's total expenditure as a share of GDP remained at par with most of its peers (figure 3.2a). The high capital expenditure during the FY09/10-FY14/15 period somewhat moderated in the following years, but it still remained higher than all of its structural and aspirational peers (figure 3.2b).

Figure 3.2a: **Total expenditure (% of GDP)**



Source: Ministry of Finance (MoF)

Figure 3.2b: **Capital expenditure (% of GDP)**

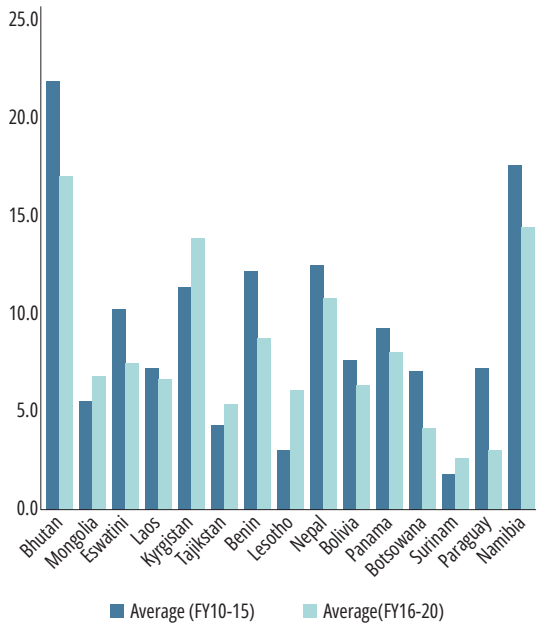
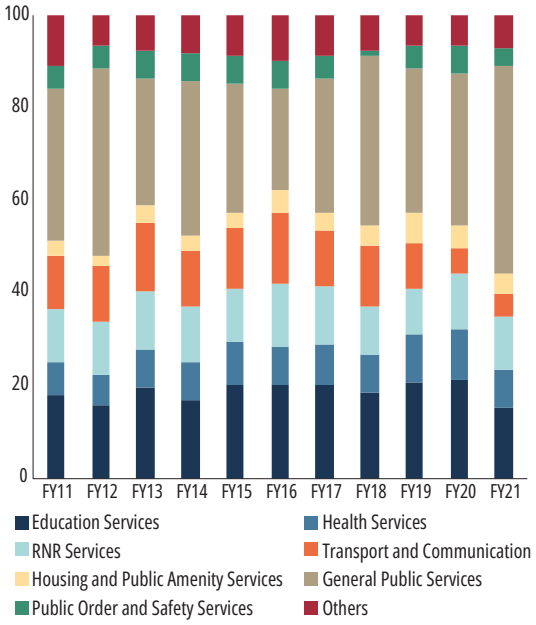
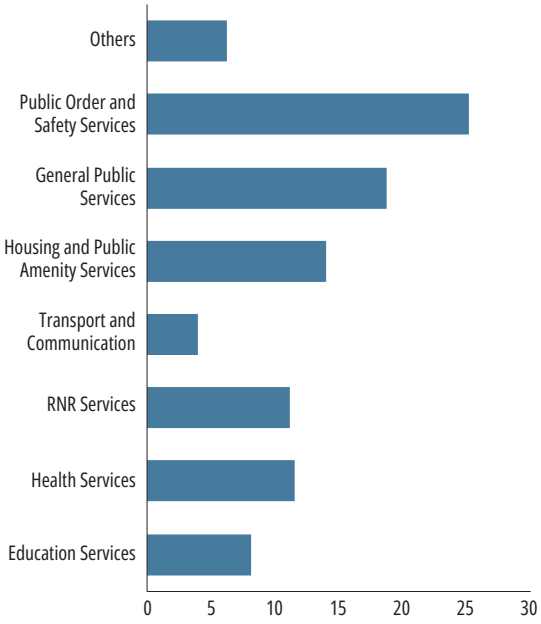


Figure 3.3: **Expenditure by sectors**



Source: Ministry of Finance

Figure 3.4: **Average yearly growth rate of expenditure (FY11/12-FY20/21)**



Source: Ministry of Finance

COVID-19 related expenditures have put pressure on the fiscal deficit. Government expenditure priorities in FY19/20 and FY20/21 were largely influenced by the COVID-19 pandemic (see box 3.1). Since the beginning of the pandemic, cumulative expenditure on COVID-19 related measures stood at BTN 8158.4 million, approximately 15.2 percent of which came through grants. The COVID-19 related expenditures were estimated at 1.5 percent of GDP on average during the FY19/20-FY21/22 period. The Government earmarked BTN 1 billion in FY21/22-22/23 for COVID-19 response. In addition, BTN 538.1 million was provisioned for procurement of COVID-19 vaccines, test kits, ventilators and construction of flu clinics at Paro and Samtse under the Ministry of Health (Ministry of Finance, 2021b). Though Bhutan was highly successful with its pandemic response, COVID-19 relief measures for individuals and businesses and subdued revenue performance have resulted in high fiscal deficits and public debt, with limited fiscal space to absorb additional shocks (World Bank, 2022).

Expenditures on general public services constitute over 40 percent of total expenditure. After declining in the first half of the last decade, expenditure on general public services rose in the final half of this decade and it exceeded 40 percent of total expenditure in FY20/21 (figure 3.3). Expenditure in this category rose by 18.8 percent on average in the last decade, exceeding the growth rate of education and health expenditure (figure 3.4). Expenditure on education averaged around 20 percent of total expenditure during this period and remained the second largest component of total expenditure. Despite the need, the share of transportation and communication expenditure declined over time to reach only 5.1 percent of total expenditure in FY20/21.

Box 3.1: Government expenditure during the COVID-19 pandemic

The Royal Government of Bhutan (RGoB) was quick to come up with a COVID-19 response package through the creation of the National Resilience Fund (NRF) and The Economic Contingency Plan (ECP). National Resilience Fund (NRF) was established to oversee the Druk Gyalpo's Relief Kidu (DGRK), which provided direct income and interest payment support to targeted individuals and businesses suffering from income loss. The Economic Contingency Plan (ECP) was formulated with a total budget of BTN 4.5 billion (2.6 percent of FY20 GDP), rationalizing current expenditure in response to expected fall in revenues in such a way that the coverage ratio is maintained as per the Constitution. The health measures focused on providing the necessary protective materials, medicines, and medical equipment to the hospitals, as well as increasing public hospital capacity and prioritizing the health-related programs in the 12th FYP.

Food security and support to the construction and tourism sector received priority. To address food security, a National Food Security Reserve (NFSR) plan and an Agriculture and Farm Road Improvement Program were developed under ECP to improve agricultural production and distribution. Support was provided to the Food Corporation of Bhutan (FCB), to stock essential food and non-food items. To support the struggling construction sector in the face of foreign workers, the ECP provided incentives to create a workforce comprised of Bhutanese nationals using the Build Bhutan Project (BBP), the Youth Engagement and Livelihood Program (YELP) and a re-skilling program. The government also simplified the procurement rules. ECP also promoted investments in the tourism sector using the Tourism Resilience Program (TRP) with an aim to support the suffering individuals and businesses in the tourism sector.

Economic support was also provided through different fiscal and monetary measures. They include deferment of loan repayment and waiver on interest payments, deferment of tax filing and payments, waiver of rent for Tourism businesses leasing Government property, debt moratorium, 5.0 percent interest provision of working capital to traders dealing with supply of essential items. It also included providing (i) short-term bridge-loans to businesses operating in Tourism, manufacturing and retail sectors and (ii) soft short-term micro loans to Cottage & Small Industries (CSIs) through the National CSI Development Bank. The Government established a National Credit Guarantee Scheme (NCGS) to ensure easy access to financing at lower cost and to attract viable projects with credit guarantees of up to BTN 30 million.

Section 2: Government spending and economic growth

Bhutan has one of the most procyclical government spending among its peers. Except for Namibia, the correlation coefficient between government spending and GDP is the highest for Bhutan among all its structural and aspirational peers (figure 3.5).[34] Though procyclical fiscal policies are common for developing countries, there is usually a negative correlation between per capita income and procyclicality of fiscal policy (Alesina et. al (2008), Elzetski and Vegh (2008), among others). Having a strong procyclical policy can make a country prone to amplified boom and bust cycles. It could also affect the quality of spending over time. Resource-rich countries that have used resource revenues to boost procyclical spending without preserving buffers have often encountered economic hardship during a downturn (Bova et.al. (2018)). Bhutan will need to consolidate its fiscal spending to maintain macroeconomic sustainability in the long run.

Bhutan's procyclical government spending is structural in nature, especially during economic booms. While Bhutan's Public Finance Act stipulates that the cost of current expenditure must be met from domestic resources, this rule does not constrain the growth of current spending when there is a temporary increase in domestic revenues. Hydropower revenue is volatile, as profit transfers and dividends from SEs fluctuate year-to-year depending on the commissioning of new plants and weather patterns. For example, when Tala was commissioned in 2007, government revenues doubled, and spending went up by almost 25 percent. As a result, domestic revenue increases from the hydropower sector have typically been accompanied by increased current expenditures. Figure 3.6 presents the evolution of character of fiscal policy stance during the past 8 years, indicating a greater likelihood of procyclical stances during periods of sustained output growth (i.e., large positive output gap). This can be explained by the ineffectiveness of current fiscal rules in restraining expenditure growth during periods of sustained boom cycles. The inability of preserving buffers during economic boom coupled with the countercyclical (i.e., expansive) fiscal policy stance adopted in response to COVID emergency has led to an erosion of fiscal space.

Figure 3.5: **Procyclicality**

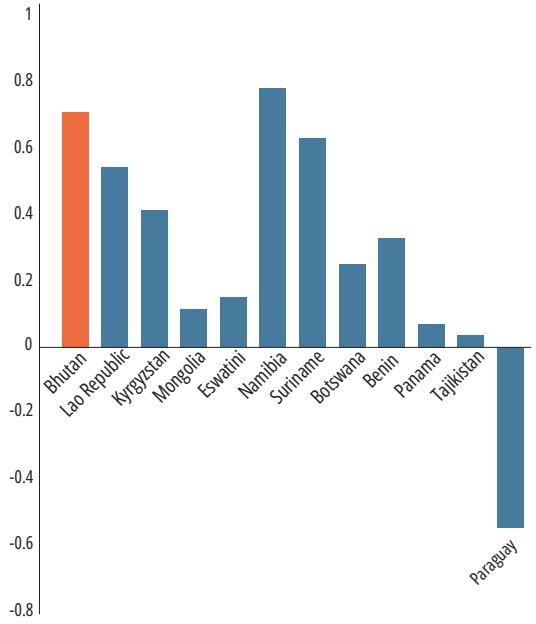
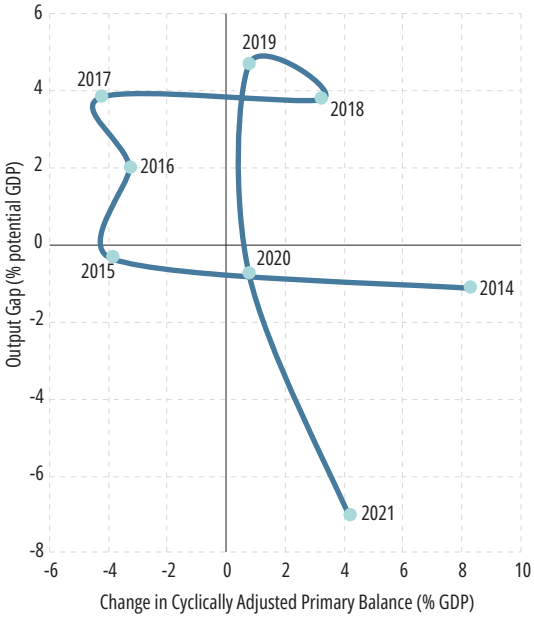


Figure 3.6: **Character of Fiscal policy in Bhutan, 2014-21**

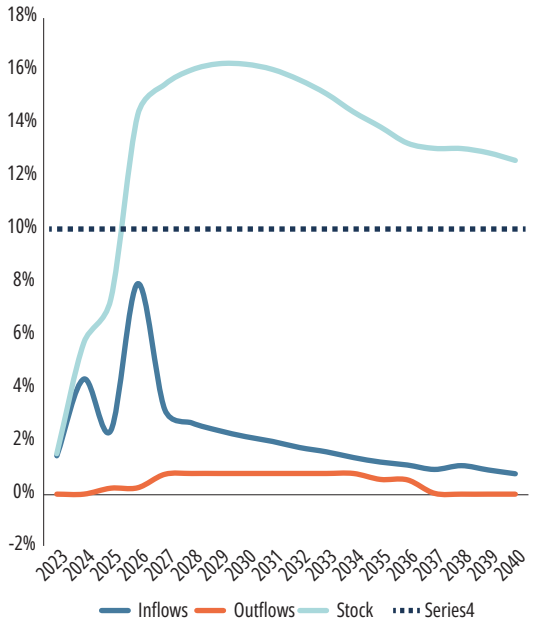


Source: Staff estimates based on MoF and World Bank data

34 World Bank staff estimates using the Hodrick-Prescott Filter. Positive correlation indicates procyclical fiscal policy behavior and a negative correlation countercyclical behavior.

In an attempt to make the fiscal policy more countercyclical, government established the Bhutan Economic Stabilization Fund (BESF) in 2018 (box 3.2). The fund held Nu825 million as of March 2022 or approximately 0.44 percent of GDP. The contribution to the fund has been stopped during the COVID-19 pandemic and the government stated that no withdrawals are planned in the near term. The BESF has the potential to accumulate significant funds if the stabilization measures are operationalized. According to the World Bank estimates, a resumption of contributions by government to the BESF could increase its balance to about 16 percent of GDP in the medium term. The investment policy stipulates that the assets of the Fund should be invested in relatively liquid foreign assets with low risks (INR and convertible currency) managed by the Royal Monetary Authority. While the implementation of the BESF could help achieve a more sustainable fiscal path, it would be important to reconsider the investment policy given the size of the Fund. The Royal Charter specifies that the government shall establish a separate institution once the BESF reaches a critical size.

Figure 3.7: **BESF (% of GDP)**



Box 3.2: The sources and uses of Bhutan Economic Stabilization Fund (BESF)

According to the Royal Charter, the sources and use of the BESF should be the following:

Sources:

- **Royalty revenue from hydropower.** For every plan period, the Royal Government of Bhutan shall determine a minimum percentage of royalty revenue from hydropower to be transferred annually to the Fund.
- **Royalty revenue from other natural resources**, and any other sources of revenue as may be determined by the Royal Government. Funds from such sources and amounts above the minimum percentage of royalty revenue from hydropower may be appropriated by the parliament on an annual, fiscal year basis.
- **Returns from the investment of the BESF**.

Uses:

- During times of macroeconomic instability, economic crisis and business cycle fluctuations.
- To transfer to a longer-term savings vehicle in case of accumulation beyond a threshold determined by the Board.
- To meet the operational costs of managing the Fund.
- To invest in a prudent manner. An investment policy shall be articulated to ensure that the investment objectives and strategies are aligned with the BESF's objectives. The investment policy shall include explicit rules on asset allocation and risk management framework.

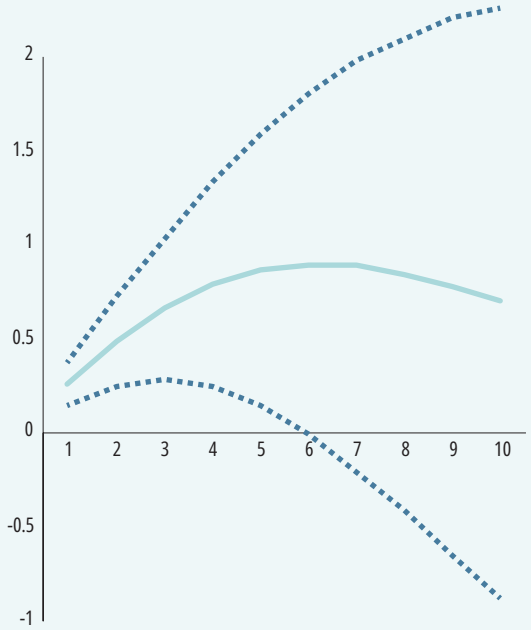
Source: BESF Royal Charter by the RGoB

Evaluating the effectiveness of government spending can provide important insights into the quality of spending. The extent to which government spending stimulates economic activities in the country is reflected in the government spending multiplier. The government spending multiplier shows the percentage change in GDP to a one percent increase in government spending. A multiplier greater than one indicates that the government is able to stimulate the economy more than proportionately by increasing government spending and the spillover effect of government spending is significant. A multiplier value of less than one indicates a less than proportionate effect and may imply a greater crowding out of the private sector due to government spending increase. The fiscal multiplier for Bhutan is estimated to be less than one (box 3.3).

Box 3.3: Estimating government spending multiplier for Bhutan

The estimation of the government spending multiplier for Bhutan follows the principles of the seminal paper by Blanchard and Perotti (2002) and the estimation techniques used by Ilzetzki and Vegh (2013), Kempa and Khan (2015). The estimation for Bhutan is challenging due to the data limitation. Though multivariate models are more common in the literature, only a bivariate structural autoregression (SVAR) model is estimated for Bhutan with government spending and GDP. The model assumes that there is no contemporaneous effect of GDP on government spending (i.e., government expenditure is not affected by shocks to GDP within the same period). Following the literature, government spending is calculated as the sum of government consumption and government investment. Both the variables are used in real terms, and they are log-transformed and de-seasonalized. Since quarterly data is not available, annual data from 2010-2021 is converted into quarterly frequency using the Chow-Lin methodology.[35]

Figure 3.8: **Government spending multiplier for Bhutan**



Source: Staff estimates based of MoF data

The results show that the impact of government spending on overall output is limited. A one percent increase in government spending leads to a 0.25 percent increase in GDP on impact. However, the impact gradually increases in the following quarters, reaching close to unity (0.89 percent) in the sixth quarter (figure 3.8). This indicates that the spillover effects take some time to materialize fully in Bhutan, in contrast to many countries where the multiplier is the largest on impact. After the sixth quarter, the multiplier value declines marginally, and the results also become statistically insignificant (evident by the widening confidence intervals). The lower than unity multiplier value in Bhutan indicates some crowding out of the private sector and the inability of government spending and policies to trigger enough private investment that can bolster the multiplier effect. Though the multiplier value is less than one, it's still in line with the outcomes found for other developing and resource-rich countries.

35 The SVAR model uses a lag length of 4 following the Hannan Quinn criterion. The model is also robust to other lag lengths.

Section 3: Rigidity analysis

The analysis of budget rigidities can shed light on the ability of the government to adjust expenditures in times of need. Budget rigidities are institutional, legal, contractual, or other constraints that limit the ability of governments to change the size and composition of the public budget, at least in the short term (Herrera and Olaberria (2020)). Thus, budget components that are cataloged as rigid or inflexible are not subject to the immediate discretion of the authorities during the fiscal year. High rigidity can restrain policymakers' ability to adapt to needs. Rigidities may force governments to cut more discretionary spending components, such as public investment, which can significantly reduce long-run growth. In many countries, policymakers' ability to do fiscal tightening is restrained by budget rigidities that predated COVID and might have only intensified since (Herrera and Olaberria (2020)). Therefore, it is important to have a clear understanding of the budget items that are driving expenditure growth and how rigid they are to analyze policy options for fiscal consolidation.

While comparing expenditure rigidities across countries, it is important to follow similar definitions for different categories of expenditure to maintain consistency. In this respect, the analysis benefited from the availability of standardized measurements of rigidity undertaken across over 100 developing countries through the BOOST tool. Building on framework introduced in Centrangolo et al (2010), the analysis systematically tags line-item spending data across countries based on a standard methodology.[36]

For the analysis, Bhutan's expenditures are classified into three main categories based on their rigidity: high, medium, and low. Wage, interest, and social benefits expenses fall under the high rigidity category since they are the most difficult to adjust in a short notice with few exceptions. Though capital expenditures are usually considered low rigidity items, expenditures that are tied to external funding are considered highly rigid because of their inflexibility. Other high rigid expenditures may include statutory expenses, some types of grants of mandatory nature and spending in defense and other country specific policy areas with legal/judicial enforcement. In the case of Bhutan this resulted in the addition of mandatory contributions and stipends. Subsidies and most other current grants are considered to be medium rigidity with the rationale being that while adjusting the spending in this category is possible, they might cause distortions and financial stress for the sectors dependent on the government which, in turn, can affect the welfare of the vulnerable section of the population. Additionally, capital expenditures and operational expenses in education and health sectors are also tagged as medium under the assumption that these types of expenditures – typically of low rigidity – might face difficulties in adjusting given their human capital implications. Lastly, expenditures on goods and services, capital assets and other expenses are categorized as low rigidity since it is possible to adjust the spending for these categories from year to year. The results of this methodological approach are summarized in table 3.1.

Bhutan's expenditure rigidity is relatively high compared to most of its peers. The analysis provides insights into both the evolution and the benchmarked performance. Around 60 percent of Bhutan's expenditure can be categorized as rigid. This includes wages, salaries, and part of capital expenditure that are tied to external financing. In order to maintain flexibility, it will be important for Bhutan to keep in check main drivers of recent rise in rigidity, particularly wage bill and social benefits as evidenced by the analysis of force and momentum (Figure 3.10).[37] In the case of social benefits, however, the majority of the increase was related to covid emergency measures (interest payment relief) which are likely to be temporary in nature, and therefore, do not undermine structural drivers of rigidity in expenditure policy.

36 An alternative approach to rigidity discussed in Herrera and Olaberria (2020) measures rigidity on the notion that public spending can be separated into a structural component that is determined by long-run economic fundamentals (i.e., rigid) and a nonstructural component that is determined by policy decisions or short-run effects of variables associated with the business cycle and are therefore discretionary. Regression analysis is then undertaken to estimate the rigid and discretionary elements of each economic category.

37 Introduced in Merotto et al (2015), force and momentum analysis help identify pressing fiscal concerns with potential to undermine fiscal space. Momentum - computed as the product of relative size and growth rate of each component - represents relative contribution of individual components to overall expenditure growth, while force - computed as the difference between momentum at period t and t-1 - captures the acceleration/deceleration of such contribution. Large, sustained positive momentum levels of a specific component might signal the need for deceleration to slow down its relative contribution to expenditure growth before these pressures lead to macro-fiscal problems.

Table 3.1: Expenditure Rigidities in Bhutan

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
High rigidity	**66.0**	**61.7**	**65.4**	**58.5**	**59.7**	**58.6**	**56.6**	**53.9**	**56.4**	**53.9**	**56.4**
Wage Expense	23.1	21.2	21.3	24.7	26.6	22.2	19.7	18.3	27.5	29.1	24.3
Interest expense	6.1	5.5	7.3	6.5	5.6	4.8	4.0	3.9	3.7	1.5	2.6
Social benefits	1.0	0.9	1.3	1.4	1.3	1.6	1.3	1.2	1.7	3.1	6.6
Basic services	1.6	1.8	1.5	1.8	1.7	1.5	1.5	1.4	1.9	1.6	1.4
Grants (contributions, stipends)	3.2	2.6	2.8	3.4	3.4	2.8	2.4	2.3	3.7	4.0	3.5
Foreign funded capex	31.1	29.6	31.1	20.8	21.1	25.7	27.7	26.8	18.0	14.6	17.9
Medium rigidity	**16.6**	**17.7**	**17.3**	**14.0**	**18.3**	**19.6**	**22.8**	**24.4**	**21.8**	**21.0**	**15.4**
Subsidies	1.0	0.8	0.9	0.6	0.5	0.8	0.7	4.0	4.8	4.1	2.6
Capex in social sectors	10.3	12.1	11.7	7.9	8.2	8.3	11.0	9.5	6.5	7.4	7.3
G&S in social sectors	4.0	3.6	3.5	4.2	4.4	3.5	3.1	3.0	4.3	3.7	2.5
Other current grants	1.3	1.3	1.2	1.3	5.2	7.1	8.1	7.9	6.2	5.8	3.0
Low rigidity	**17.4**	**20.6**	**17.3**	**27.5**	**22.0**	**21.8**	**20.5**	**21.7**	**21.7**	**25.0**	**28.2**
Capital Expenditures	8.4	9.9	6.9	15.8	12.7	14.0	12.7	14.4	12.1	16.0	13.0
Other Goods and services/expenses	9.0	10.7	10.4	11.7	9.3	7.8	7.8	7.3	9.6	9.1	15.2

Figure 3.9: Evolution of rigidity in international perspective

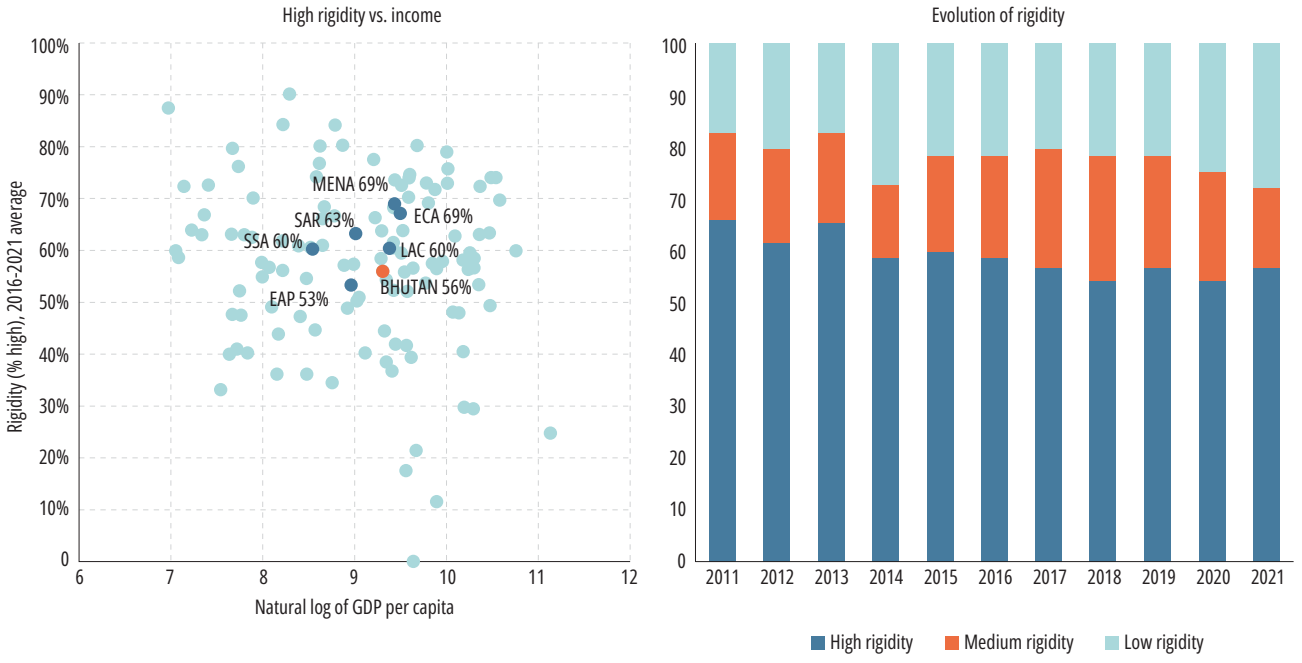
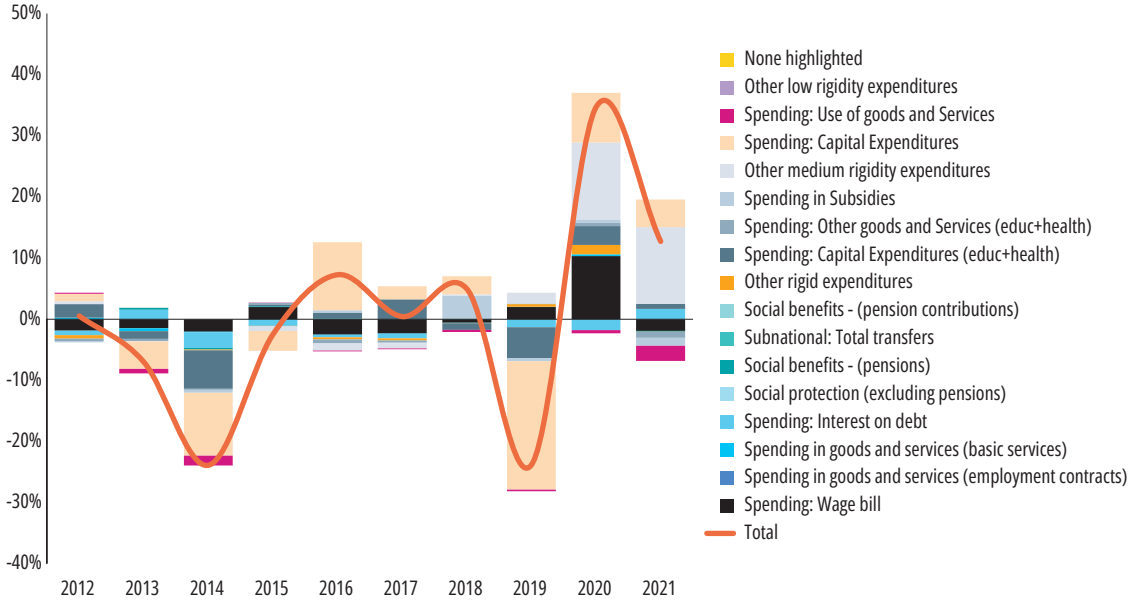


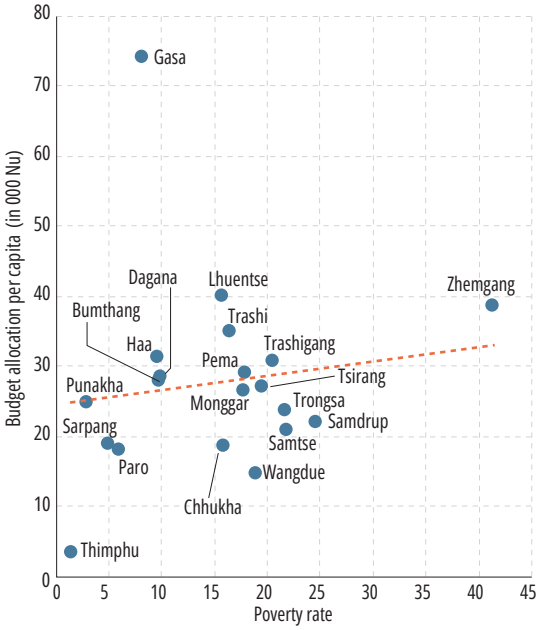
Figure 3.10: **Momentum by Economic Expenditure Category**



Section 4: How well are public resources allocated across Bhutan?

While districts with higher poverty rate received higher per capita budget allocation in general, there is room for improvement. An upward slope in the trendline in figure 3.11 indicates that the per capita budget allocation in the districts increase with poverty rate. However, most of the districts with a poverty rate of 10 percent or higher are below the trendline, indicating a possible opportunity to spend more in these districts. Based on their poverty rates exceeding 20 percent and their position below the trendline, the districts of Samdrup, Trongsa, and Samste are the potential candidates for receiving increased budget allocations. Meanwhile, districts like Haa, Lhuentse, and Gasa receive a relatively larger share of the budget relative to their poverty rate.

Figure 3.11: **Per capita budget allocation and poverty rate**



Source: Staff's calculation based on MoF data, Statistical Yearbook 2021, and Bhutan Poverty Analysis Report 2022

Section 5: How Well Are Public Resources Being Spent?

5.1 Budget execution

Figure 3.12: **Budget execution rate - total**

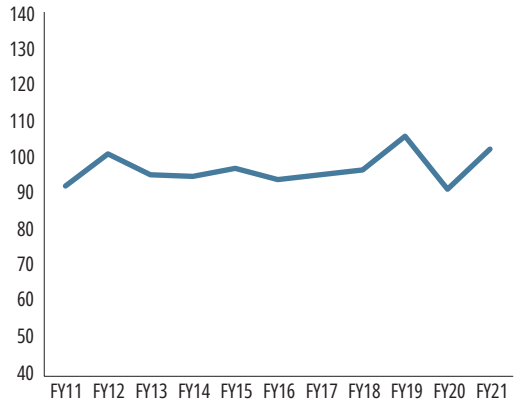
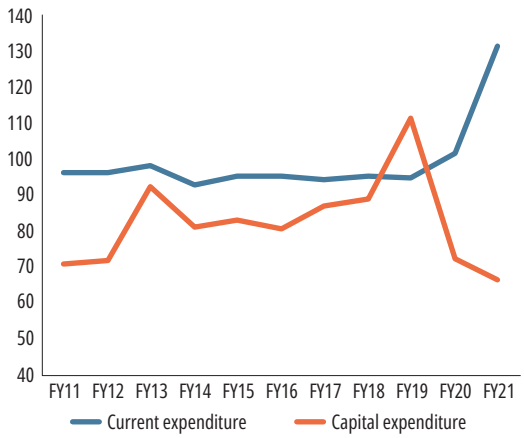


Figure 3.13: **Budget execution rate - current and capital**



Source: Ministry of Finance

Budget execution rate is high, but the gap between current and capital expenditure budget execution rose in recent years. To assess budget execution, it is useful to compare the actual expenditure with the original budget allocation rather than the revised budget, since the original budget provides insights into the planning capacity and the quality of the budget process at the Ministry of Finance. Relative to original budget allocation, budget execution rates remained satisfactory in the last decade, fluctuating between 90 to 100 percent, with the exception of FY11/12, FY18/19, and FY20/21, when they marginally exceeded 100 percent (figure 3.12). However, the capital expenditure execution rate has mostly remained below the current expenditure rate, with the gap between the two widening in FY19/20 and FY20/21 (figure 3.13). In the last decade, only about 83 percent of the capital expenditure budget was executed on average, which is much lower than the current expenditure execution rate. Lower than expected government revenue performance, delays in the execution and completion of projects by contractors have led to a notable decrease in the total investment costs of projects compared to the budget plan (Ministry of Finance, 2021a). The gap between the two expenditure categories has widened significantly in FY19/20 and FY20/21, with current expenditure rising to 132.2 percent of its allocation and the capital expenditure implementation dropping to only 67.1 percent in FY20/21. While the current expenditure exceeded its allocation due to additional COVID-19 related costs, the lower execution of capital expenditure can be attributed to movement restrictions and labor shortages following the pandemic. Despite the slow execution in FY20/21, the revised budget increased capital expenditure allocation by 7.3 percent of the original budget (World Bank, 2021). The budget for FY23/24 had lower revenue and expenditure targets than the revised FY22/23 budget (box 3.4)

Budget execution rate of the local governments was higher than the administrative agencies and ministries on average. In last five years, the budget execution rate of the local governments averaged almost 92.0 percent[38], higher than the administrative agencies and ministries (figure 3.14). For most ministries, the budget execution rate declined in FY19/20 and FY20/21. This is also true for the Ministry of Health, where the execution rate dropped to only 68.8 percent despite COVID related urgencies. Budget execution rate for the Ministry of Education was one of the lowest in the last five years on average, and the lowest in FY20/21 among all ministries. More detailed analysis on budget performance will be available in the upcoming Public Expenditure and Financial Accountability (PEFA) report for Bhutan.

38 This execution rate is based on the revised budget allocation as the original budget allocations based on administrative classification were not publicly available for all years

Box 3.4: Features of the FY23/24 budget

The FY23/24 budget was presented to the parliament in June 2023 which aimed at building stronger institutions through strategic reforms while ensuring a sustainable fiscal path and smooth transition. The medium-term outlook is based on a gradual fiscal consolidation. While the fiscal deficit is expected to remain elevated at 9.7 percent of GDP in FY23/24, it is expected to be contained within 5 percent of GDP within next 5 years.

The total estimated resource for FY23/24 is BTN 53513.2 million, 12.4 percent lower than the FY22/23 revised estimate. Domestic revenue is expected to contribute 86.4 percent of total resources, which includes BDT 4000 million from the DHI to meet the salary payment under the Sixth Pay Commission Report. Grants are expected to decline by 66.7 percent compared to the revised FY22/23 budget. Since the 13th Five Year Plan is under formulation and commitment from the development partners are yet to be confirmed, the grants estimate for the FY 23/24 is lower and includes only those that have been committed to be disbursed. The projected growth in higher tax revenue is expected to come from corporate tax from the Druk Green Power Corporation (DGPC) with the corporatization of the Mangdechhu hydropower project, property tax, and royalty.

Figure 3.15: **Sources of revenue**

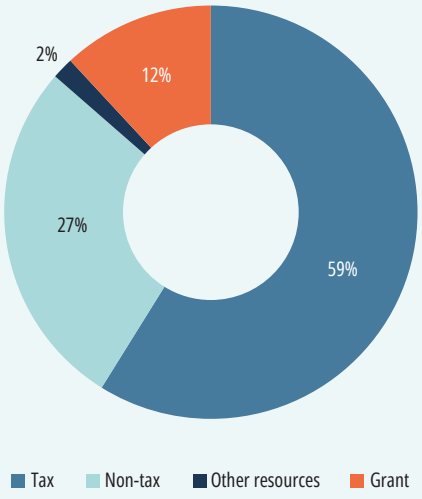
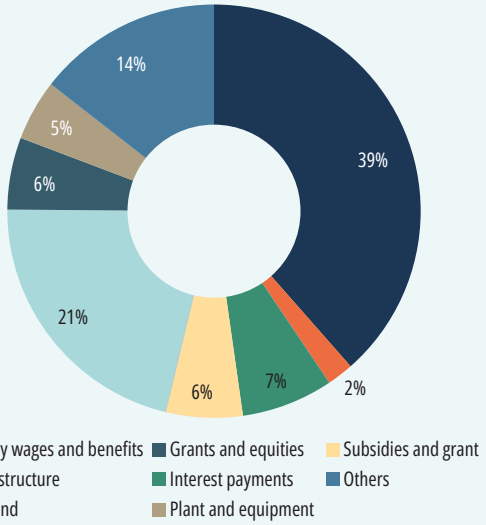


Figure 3.16: **Areas of expenditure**



Total expenditure is estimated at BTN 74861.6 million, 2.8 percent lower than the revised FY22/23 budget. Out of the total expenditure, about 39 percent is assigned to salary and benefits. Capital expenditure makes about 40 percent of total expenditure. Similar to previous years, given that the estimated domestic resources are not adequate to cover the recurrent expenses, the sources of financing for the capital budget are through grants (27 percent) and from deficit financing that is planned to be mobilized from domestic market and concessional external borrowings (73 percent). The budget for FY23/24 is aimed at ensuring completion of on-going activities and continuity of critical public service delivery.

Share of social service and economic and public services expenditure in total budget declined for FY23/24. Within social services, though share of education expenditure increased marginally, share of health expenditure declined. Most of the education expenditure would be driven by spending on undergraduate scholarship and improving access to the quality Early Childhood Care and Development. Health spending would prioritize procurement of medical equipment and construction of different hospitals. Share of expenditure on general public services and debt service payments on total expenditure has increased by 2.4 and 5.8 percentage points, respectively (table 3.2).

Table 3.2: Sectoral allocation in the FY23/24 budget

Sectors	Share (%) in total allocation	Pp difference from previous year
I. Social Services	28.8	-0.4
Health	11.6	-1.3
Education	17.2	0.9
II. Economic and Public Services	26.7	-6.5
Renewable Natural Resources	8	-0.6
Mining & Manufacturing Industries	3.2	-0.6
Roads/Transport	8	-3
Housing & Community	3.7	-2
Communications and Technology	2.1	-0.5
Energy	1.7	0.2
III. Religion & Cultural Services	1.7	-0.5
IV. Law and Order Services	3.1	-0.8
V. General Public Services	21	2.4
VI. National Debt Services	18.8	5.8
Total	**100**	**0**

5.2 Wages and salaries

Bhutan's expenditures on pay and allowances as a share of current expenditure are high. In the last five years, pay and allowances to government officers accounted for more than one-third of total current expenditure and one-fourth of total expenditure. While the total number of civil servants rose by 15.5 percent in the 2016-2020 period, the expenditures on pay and allowances increased by 59.8 percent.[39] A permanent increase in pay and allowance is often driven by a temporary rise in hydropower-based revenue (i.e., a 40.4 percent increase in salary in FY19/20), complicating the budgetary management. Based on the World Bank's World Development Indicator's (WDI), compensation of employees as a share of current expense reached as high as 40.2 percent in FY19/20, significantly higher than most countries in the world (figure 3.17).[40] Public sector wages are higher in Bhutan compared to private sector jobs. However, the wage gap between the public and private sectors is entirely explained by observable worker characteristics. For example, wages are higher in the public sector because there are larger number of men who are better paid than women, there are more experienced workers, and the proportion of skilled workers and highly paid occupations is higher in the public than in the private sector. The Sixth Pay Commission Report increases public sector wages significantly (box 3.5).

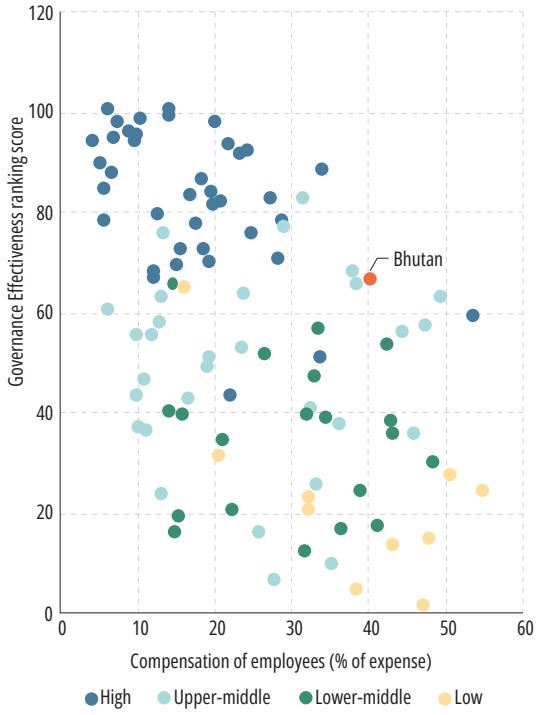
Bhutan's governance performance is better than most countries in similar income group. Bhutan has consistently performed well in different governance indicators. Despite a decline in recent years, Bhutan's Government Effectiveness score in the World Governance Indicator is higher than almost all low and lower-middle income countries in the sample (figure 3.17). Its average for the 'public sector management and institutions' cluster under the World Bank's Country Policy and Institutional

39 Source: MoF and Royal Civil Service Reports
40 The definition of compensation of employees (% of total expense) data in WDI differs from the pay and allowance data published by the MoF. The former consists of all payments in cash, as well as in kind (such as food and housing), to employees in return for services rendered, and government contributions to social insurance schemes such as social security and pensions that provide benefits to employees. The high ratio of compensation of employees as a share of current expense should be interpreted with caution since it may also reflect the country's inability to spend in other sectors.

Assessment (CPIA) is higher than all but two among the 112 countries for which the exercise is conducted.[41] Though not all, but part of this exceptional governance performance can be attributed to the attractive salary structure of the government employees.

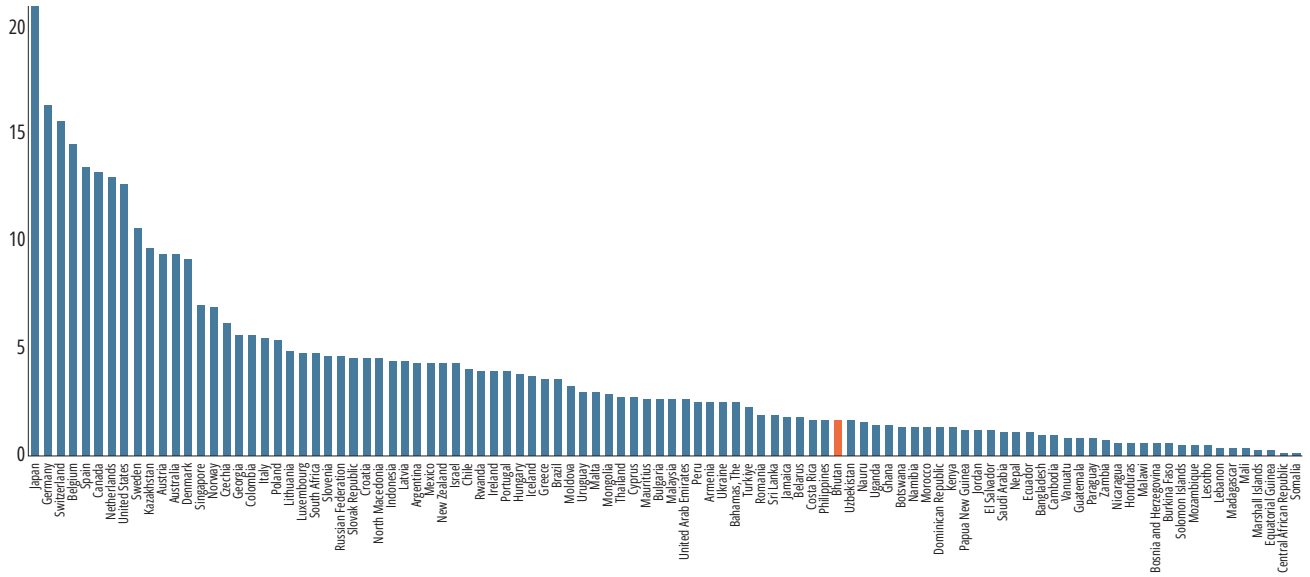
However, there is room to improve efficiency. An efficient governance system does not always require a large fraction of government expenditure on pay and allowances. In fact, there is a negative correlation between compensation expenses and governance effectiveness ranking (figure 3.17). Higher income countries tend to achieve a higher ranking by spending relatively smaller fraction of their current expense on compensation, indicating higher efficiency of their system. On the contrary, the inefficiency of the lower and lower middle-income countries is reflected in the fact that they spend more on compensation with a relatively smaller impact on governance effectiveness. A simple estimation of an efficiency ratio by dividing the governance effectiveness ranking by the compensation as a percentage of current expense indicates that Bhutan ranks 64 out of 100 countries in the sample. While Bhutan's high ranking in governance indicators is commendable, it could try to move towards the upper left corner of figure 3.17 and to the left of figure 3.18 by improving the ranking with a lesser fraction of its current expenditure on compensations, following other high and upper-middle income countries.

Figure 3.17: **Compensation and goverment effectiveness**



Source: Staff's calculation based on World Governance Indicator and WDI dataset

Figure 3.18: **Efficiency ratio**



Source: Staff's calculation based on World Governance Indicator and WDI dataset

41 The cluster considers quality of public administration, property rights and rule-based governance, quality of budgetary and financial management, transparency, accountability, corruption, among other governance indicators.

Box 3.5: Sixth Pay Commission Report and the gap between the private and public sector wages

The Sixth Pay Commission Report proposed a significant increase in pay and allowances for the government employees. Effective from July 2024, a significant salary boost is anticipated, ranging from 55 to 74 percent, depending on the job grade. The pay and allowances of employees at three higher education institutions, which were excluded from previous pay commissions, are now incorporated into the new pay commission structure.[42] The latest pay commission report underscores two primary objectives: i) ensuring a reasonable standard of living for public servants, and ii) fostering motivation and retention of skilled individuals within the public sector.

The new pay scale is expected to increase the overall expenditure significantly. The annual increase in public expenditure due to the new pay scale is expected to be around BTN 6000 million, which is about 9 percent of total primary expenditure of FY21/22. These additional expenses are expected to increase the total current expenditure by 17 to 18 percent in the next three fiscal years compared to the assumptions under the MTMF discussed in the chapter 1, and put additional pressure on the already shrinking fiscal space. The clean wage formula proposed in the Fifth Pay Commission Report had a variable pay component based on Performance Based Incentives (PBI). Though PBI is continued in the latest Pay Commission Report, the proposed revamp of the performance management system is yet to materialize.

The new pay structure is expected to further increase the gap between the wages and benefits of the public and private sector jobs. Even before the new pay structure, public sector workers enjoyed job security and a better compensation package than most private sector jobs in Bhutan (Schmillen (2017)). To satisfy the 'prevailing wage principle'[43], which requires paying wages and compensation packages comparable to those received by private employees for comparable work, Bhutan's public sector wages needed to be lower even before the recent pay increase (World Bank and RGoB (2016)). The public-private sector wage gap has likely increased in the aftermath of FY23/24 planned wage hikes in the public sector (net of increased private sector compensation). However, the size of the increase in the wage gap is uncertain as large pay increases in the public sector is expected have spillover on profits in the private sector and on prices, affecting the wages in the private sector as well.

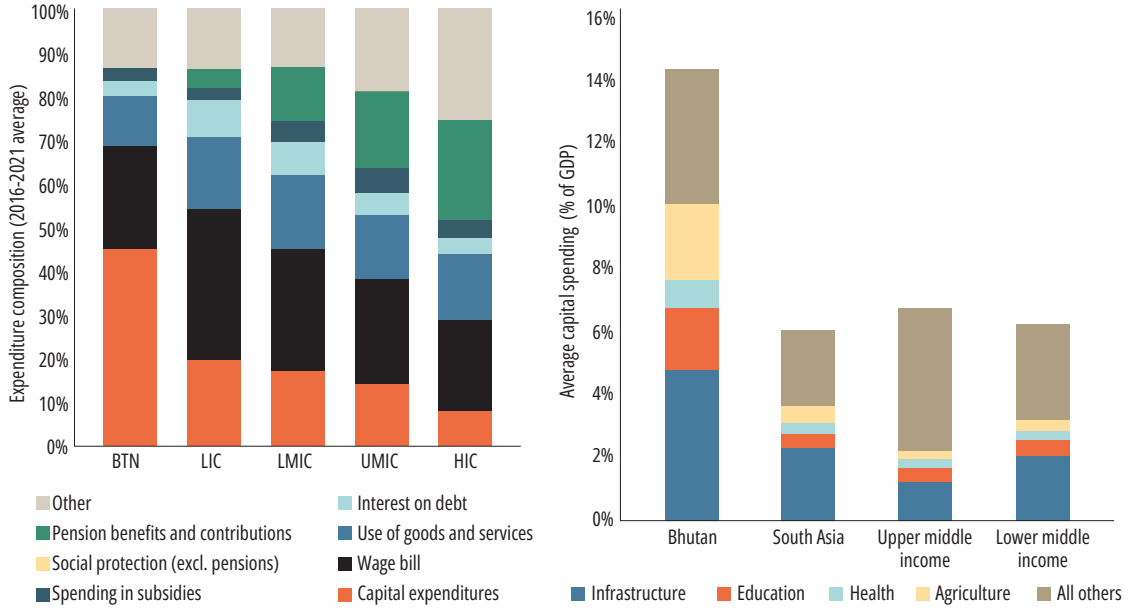
As a result, it can create market distortions and negatively affect private sector development. There is an increased interest among the youth to join the public sector, making it difficult for the private sector to hire qualified workers. In a survey of unemployed youth, 50.3 percent said they would prefer to work for the government and another 32.4 percent aspired to work in an SE (MoLHR and World Bank (2013)). Prior to the Sixth Pay Commission Report, the average salary for public sector jobs increased by about 17.2 percent and 15.6 percent in the fourth and fifth pay commission report, respectively. The preference for public sector jobs creates incentives to accumulate skills that cater to the public sector, with more students opting for general university level education rather than specializing in different fields through university or vocational training (World Bank, 2020a). This creates distortions in the economy by reducing the availability of qualified and skilled workers necessary for the non-government sector to flourish.

42 The universities are: the Royal University of Bhutan (RUB), Khesar Gyalpo University of Medical Sciences of Bhutan (KGUMSB), and Jigme Singye Wangchuck School of Law (JSWL)
43 See Fogel and Lewin (1974)

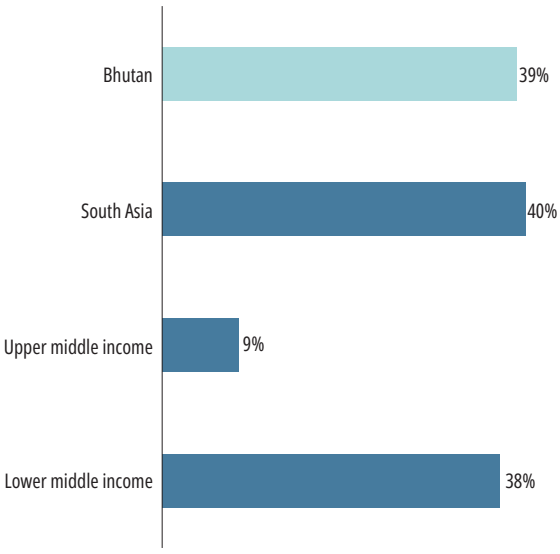
5.3 Capital expenditure

Bhutan has one of the highest capital spending in the world. On average Bhutan's capital expenditure has been almost 50 percent of total expenditures and 15 percent of GDP during the past decade, far exceeding the majority of countries across all sectors (figure 3.19). While this has contributed towards important and positive development outcomes such as universal access to electricity and educational and health services, there are important gaps to recognize as well. Dependence on foreign aid remains elevated at an average of 30 percent financing of overall spending levels in infrastructure sectors, raising concerns on its long-term sustainability and proper planning and prioritization of investment projects. While overall budget deviation is low, under-execution of infrastructure sector is not trivial, amounting to more than 20 percent over the 2011-21 period. Equally important, the quality of infrastructure in Bhutan remains below many countries despite spending considerably higher amounts, bringing into question efficiency considerations.

Figure 3.19: **Bhutan capital expenditures in international perspective**



Foreign share of infrastructure spending



Capital Spending vs. Quality of infrastructure

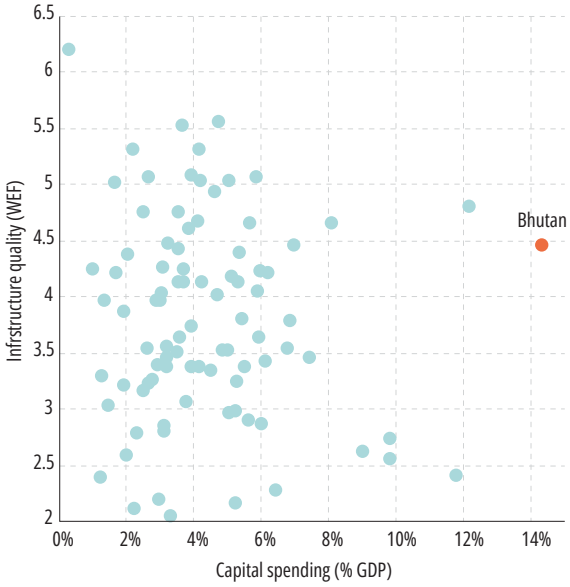
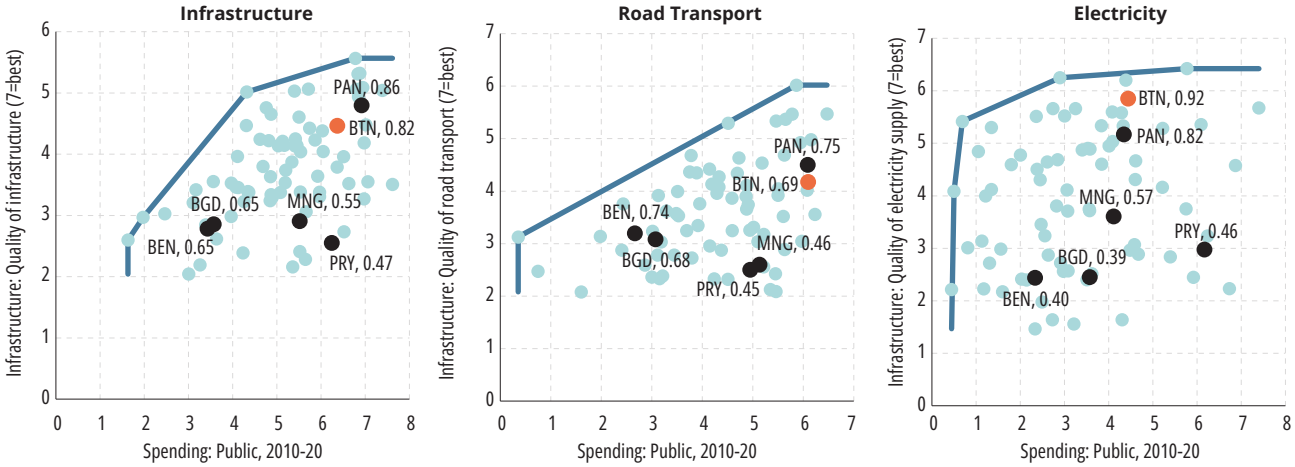


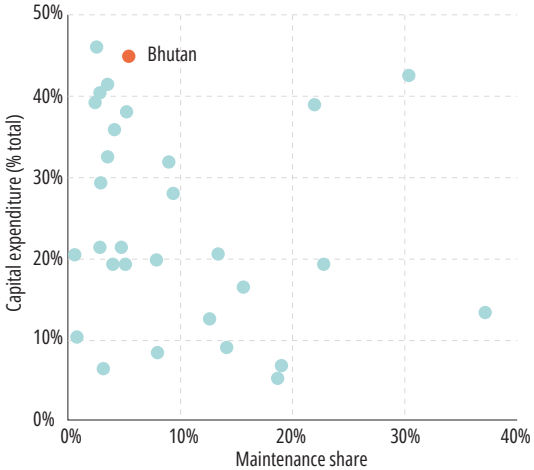
Figure 3.20: **DEA in infrastructure**



To that effect, Bhutan continues to face serious challenges in each of the three dimensions that contribute to the overall efficiency of public investment, namely, allocative efficiency, productive efficiency, and efficient use of assets.[44] Allocative efficiency requires that projects are prioritized and selected according to their social worth and in alignment with government's strategic priorities, consistent with available fiscal resources over the medium term. Achieving productive efficiency in investment demands that, once the decision is taken to go ahead with a project, inputs are procured economically and the construction process is managed optimally, so that the infrastructure assets are completed on budget, on time and to specification. Efficient use of assets is achieved when adequate financing is provided to ensure infrastructure services are delivered as intended, and to maintain the assets for their planned lives and service quality. A Data Envelope Analysis (figure 3.20) confirmed opportunities for efficiency gains with an overall efficiency score of 0.82 for overall infrastructure. Unbundling these scores across subsectors reveals further insights into the driver of inefficiency. While Bhutan receives a score of 0.92 when it comes to electricity – a testament to its commitment to ensuring universal access to reliable electricity supply - its score decreases to 0.69 when it comes to road transport.

Beyond geographical considerations, other expenditure policy factors might also play a role in affecting overall efficiency. While capital expenditure can suffer from nontrivial under-execution undermining overall investment efficiency, large volume of capital expenditures can give rise to operational inefficiencies in the form of systematic cost overruns and time delays if not supported by a well-functioning public investment management system. Box 3.4 discusses examples of analysis undertaken in other PERs to identify entry point for efficiency reforms in public investments. Finally, another important factor that may be considered is the shares of maintenance expenses which in the case of Bhutan for the 2011-21 period only represent 5 percent of total volume of capital expenditures, among the lowest across developing countries (Figure 3.21).

Figure 3.21: **Maintenance vs capital expenditures**

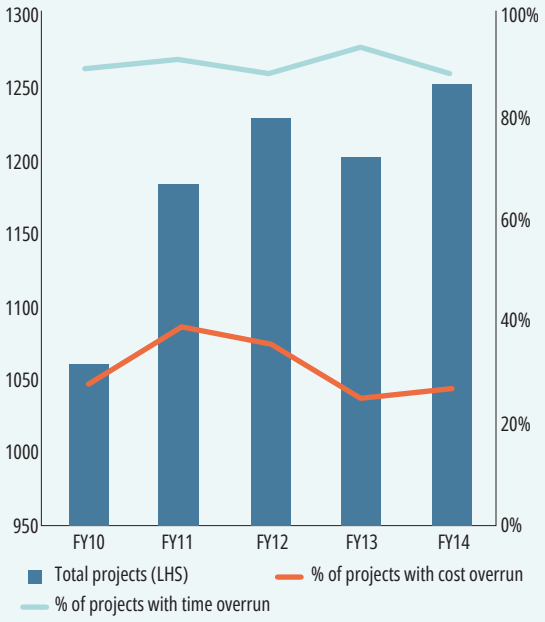


44 The discussion in this section on PIM is drawn from the 'Strategic Diagnostic Assessment of the Public Investment Management System in Bhutan 2021' report published by the Ministry of Finance with support from the World Bank

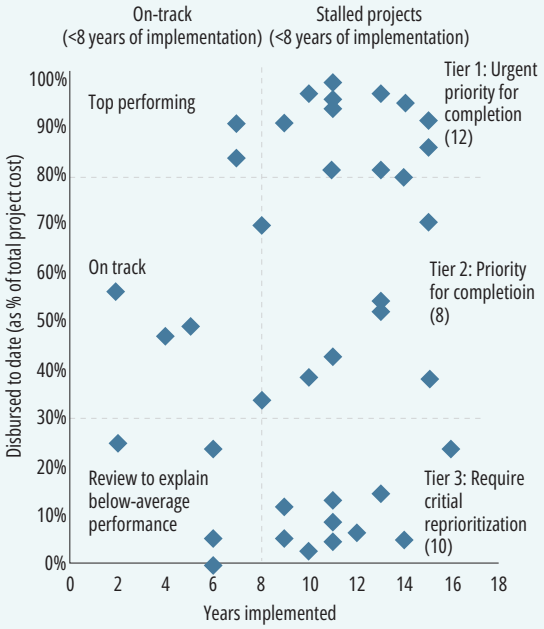
Box 3.6: Analyzing operational inefficiencies of capital investments – examples of PERs

An innovative approach in PER to assess the efficiency of public investment management has revolved around linking up project-level disbursement data with administrative fields to estimate cost overruns and time delays, as well as broader portfolio analysis considerations. For instance, in Kenya (2020) and Myanmar (2017), individual project-level data were collected to identify portfolio-wide issues in terms of cost overruns, time delays, and dormant projects, and highlighting the need for rationalization and prioritization. Another good example is presented in Bangladesh (2015), which looks at a portfolio of capital investments and documents the prevalence of cost and time overruns, as well as other operational inefficiencies. In all three cases, the analysis was instrumental in the identification of entry points for efficiency gains via capital portfolio prioritization and greater scrutiny on least performing projects.

Bangladesh operational inefficiency (2015 PER)



Myanmar tier prioritization, (2017 PER)



Capital expenditure allocation has become more decentralized in recent years. Capital expenditure allocations to districts as a share of the total capital expenditure budget increased from 13.2 percent in FY13/14 to 23.2 percent in FY20/21. The issuance of a decentralization policy in FY18/19 allowed the district administrations to have greater authority in terms of capital spending, socioeconomic planning, management of natural resources, budgeting, and public service delivery. This resulted in a particularly sharp increase in capital budget allocation to districts, despite the district administration's inability to fund capital projects even from their internally generated resources (Ministry of Finance, 2021a).

Progress in restructuring of public investment in many areas has been slow. While the focus has been on cleaning up of the existing fragmented portfolio, several measures seem to be rather short-term in nature and aimed to deal quickly with consequences rather than tackle the root causes of the fundamental systemic problems. Total Government budget allocations in the last decade could only accommodate less than half of total public investment needs for approved projects from both central and local governments. Further evidence of inefficiency comes from the sectoral distribution of public investments even during the recent period of investment consolidation. The growing concern regarding the rapidly declining efficiency of public investment created an urgency for PIM reforms.

A recent Public Investment Management (PIM) Assessment report underscored that the country has yet to establish a fully functioning PIM system in line with good international practice. The report highlighted several major issues and challenges in Bhutan's PIM system (see box 3.7). A number of necessary preconditions for sound PIM system are yet to be established and hence there is significant room for improvement to enhance both the allocative and productive efficiency of public investments in Bhutan, so as to provide high quality infrastructure services and crowd in private investments.

Box 3.7: Major issues and challenges in Bhutan's Public Investment Management (PIM) system

With support from the World Bank Group (WBG), the Royal Government of Bhutan (RGoB) undertook a comprehensive public investment management (PIM) assessment. The main purpose of the diagnostic assessment was to identify key reform areas meant to improve public investments planning and management processes. The major issues and challenges identified in the assessment include the following:

a. There is a large number of strategic documents, but they lack the coherence and realism necessary to provide strategic guidance for public investment
b. The practical status of project appraisal in the broader system remains ambiguous, and elements of good practice in project appraisal have not yet been fully operationalized
c. The necessity for independent review of project proposals is recognized in the legislation, but the current design is not strong enough for a fully impartial review of the feasibility study and appraisal findings
d. Although some broad criteria/principles for selecting projects for budget funding are defined the annual budget preparation guidelines, they are not very precise, and their application is not very transparent
e. Overseas development assistance (ODA) funded project are generally reasonably robust, but there is scope for further strengthening and addressing weaknesses in Government-funded projects
f. MoF is often unable to identify projects with a high risk of delivery failure and take adequate steps to bring them back on track or close them down if necessary
g. Shortfalls in funding for current expenses are frequent, especially with respect to maintenance expenditures, which are consistently under-funded
h. There is no firm legal and regulatory basis for ex post evaluation. Except for ODA projects, impact assessments are rarely performed. Lesson learning is not a strong feature of project completion reports.

Source: Ministry of Finance, 2021a

5.4 Education and health expenditure

Despite the difficult geographical terrain and dispersed population settlements, Bhutan has performed remarkably well in terms of providing education and health services to its citizen. In line with the mandate of the constitution, education and health services are predominantly financed and delivered by the public sector and has led to considerable improvements in access to formal education and in health outcomes. To ensure that students from remote regions can access education, Bhutan has implemented innovative solutions, such as mobile schools and boarding facilities. Currently, about 24 percent of the students in the country reside in boarding schools. From an embryonic health system with two hospitals and 11 dispensaries and three doctors in 1961, Bhutan now has 28 hospitals, 156 Basic Health Units (BHU) and 654 Outreach clinics, serving patients at different corners of the country.

a) Education expenditure

The government's expenditure on education has been high, resulting in a rapid increase in access to education. Bhutan's expenditure on education fluctuated between 5.0 to 7.5 percent of GDP during the FY10/11-FY20/21 period (figure 3.22a). Bhutan spends significantly more than its income peers when it comes to per capita spending in education (PPP).[45] As a result, Bhutan has achieved a 100 percent enrollment rate in primary schools, while gross secondary school enrollment has also rapidly expanded to reach 90 percent in 2018. The government has recently given greater emphasis on technical and vocational education and training (TVET). A draft of the TVET Policy was finalized in 2021. The Policy is designed to reform the TVET system through multi-pronged interventions. The TVET reform is envisioned to create a work-ready and future-ready workforce (State of the Nation, 2021).

45 Based on the available data for FY19/20 in the WDI database

Figure 3.22a: **Education expenditure as a share of GDP (%)**

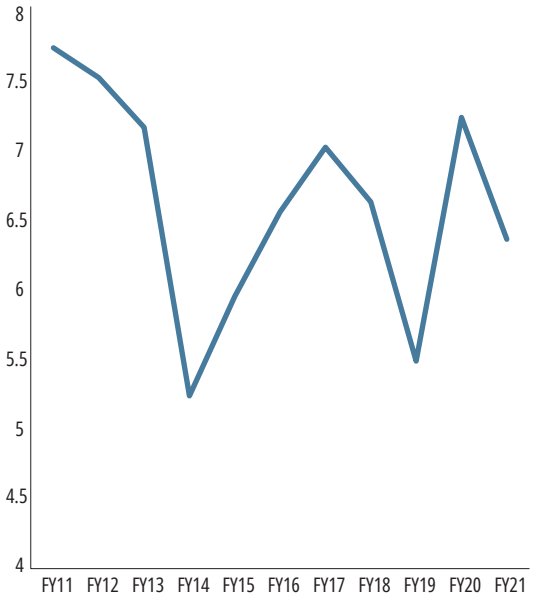
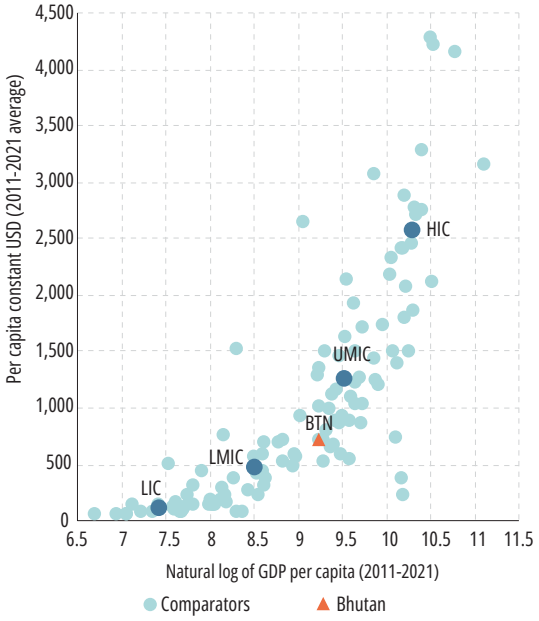
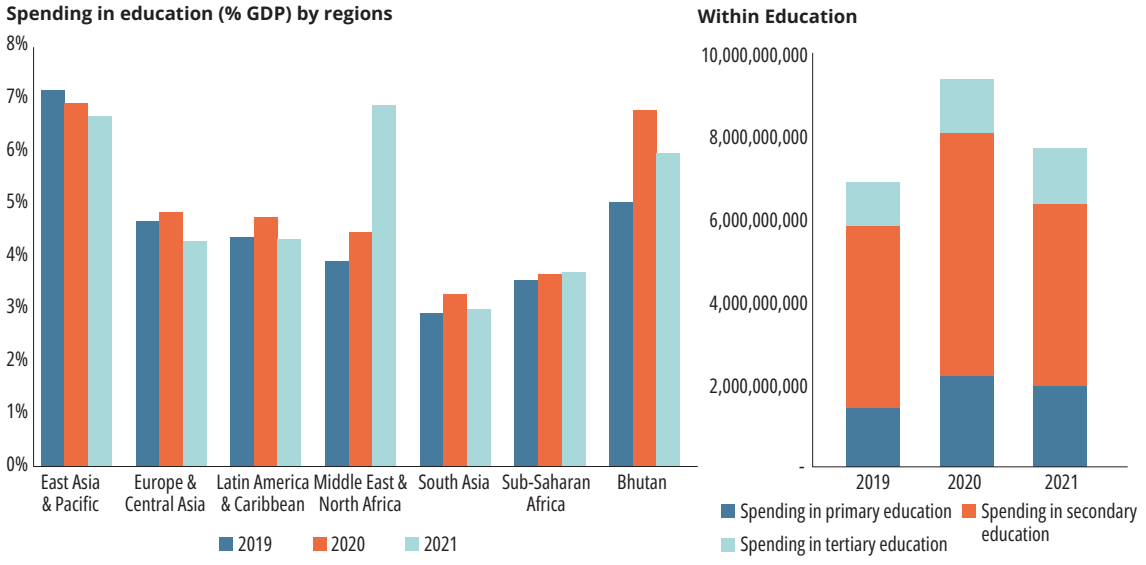


Figure 3.22b: **Per capita spending in education and income**



Despite improvements in access to education, the general skill level remains low. There is a lack of interest among youth to pursue vocational training despite rising demand in the industry (Dahal, 2022). Institutions providing TVET often lack adequate capacity, and the mismatch between the curriculum and labor market needs is growing. About 60 percent of nonfarm private sector employers believe their workers have insufficient ICT skills, and 35–40 percent believe they have insufficient teamwork, leadership, and problem-solving skills (Santini et.al (2017)). As mentioned previously, attractiveness of jobs in the public sector leads students to enroll in general subjects in their tertiary education, leading to a shortage of technical skills sought by private employers. Schools in rural and remote areas and those with higher proportions of students from minority language backgrounds have difficulties recruiting and retaining qualified teachers (World Bank, 2020a). Furthermore, spending shares of education (% of GDP) significantly declined in 2021 as a result of covid emergency, with most reductions occurring at secondary level (figure 3.23), warranting further scrutiny into its long term trajectory.

Figure 3.23: **Recent trends in education spending**



Following Miningou (2019), we conduct an efficiency analysis of education spending using the frontier approach. This approach is based on the construction of a production frontier that gives the maximum outputs (quality education in this case) that can be achieved given the quantity of the inputs used (public expenditure on education). The frontier approach allows benchmarking countries and finding out those with the best practice in terms of the efficient utilization of public financial resources in the education sector. Measuring the efficiency of public expenditure on education thus requires input and output variables to be defined. To properly account for the demand for education in countries as reflected by the size of the school age population, total public education expenditure (government expenditure + education aid received) per school-age individual (population of pre-primary, primary, secondary and higher education age) is used as an input variable.[46] To control for differences in purchasing power across countries as well as the inflation, public expenditure is expressed in constant PPP terms. The ideal output variable should capture both access to education and learning. Here, the learning-adjusted years of schooling (LAYS) from the World Bank's Human Capital Index (HCI) is used, which is comprised of expected years of schooling and a harmonized test score. Despite the limitations, LAYS appears to be one of the most reliable indicators of quality education that is available and covers a large number of countries, including developing countries. There are several other control variables used in the estimation to account for other factors (please see the appendix for detailed methodology).

Bhutan spends relatively more on education compared to its peers, but in terms education outcome, it lags behind many of its peers. Looking at Bhutan and its peers separately reveals that Bhutan spends more on education per school-age child compared to most of its peers. However, in terms of LAYS, which measures the output of education spending, Bhutan is ranked lower than most of its peers (figure 3.24b). Based on education expenditure per school-age child in 131 countries with data available, Bhutan is ranked 68, while the ranking based on LAYS is 86. This indicates that Bhutan may not achieve the expected level of access to quality education given its expenditure level.

Figure 3.24a: **Education expenditure and LAYS**

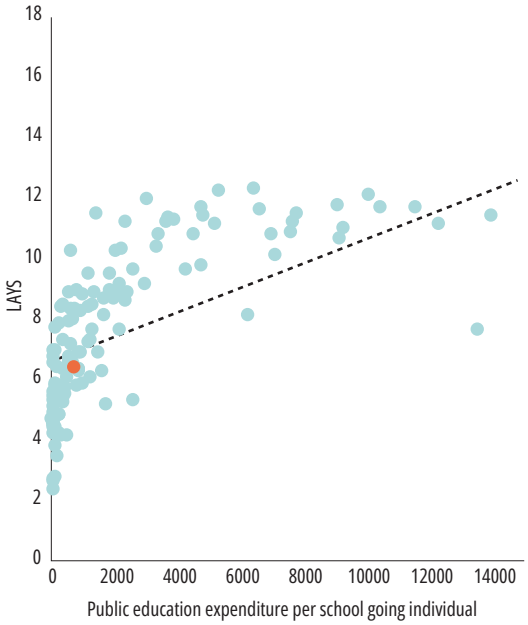
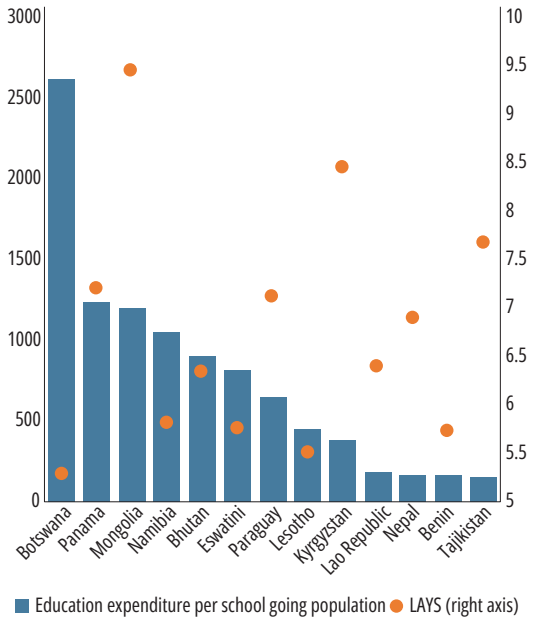
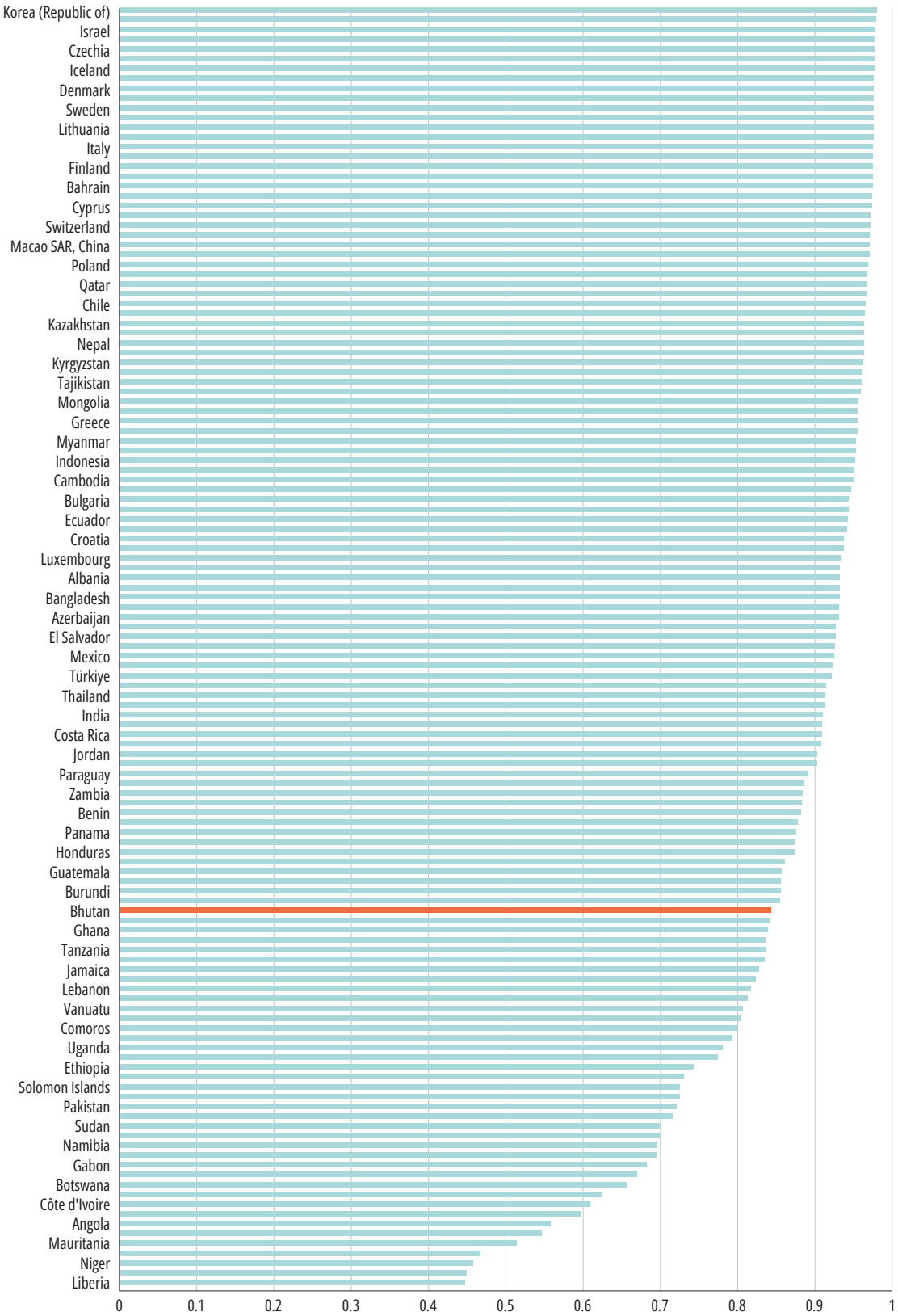


Figure 3.24b: **Education expenditure and LAYS**



46 Some literature also uses public education expenditure as a share of GDP or as a share of total public expenditure as an input variable. While it reflects government efforts towards education financing given the available resources, it does not do well in terms of capturing the demand for education and actual flows of public financial resources into the education sector.

Figure 3.25: **Efficiency scores**



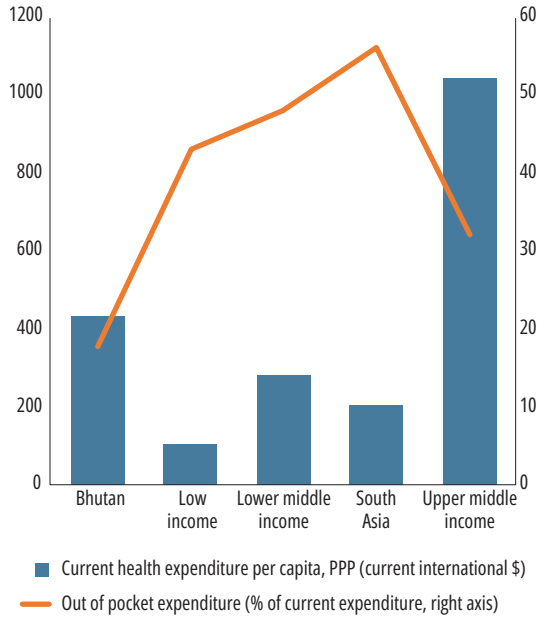
An efficiency analysis was conducted to evaluate how efficient is the use of education resources in Bhutan compared to other countries around the world. An efficiency score is derived for each country, using the estimations from equation 3 described in the appendix 7. The efficiency score varies between 0 and 100 percent and captures the relative capacity of countries to make proper use of the financial resources provided to the education sector.[47] The results show that the average efficiency for the full sample is about 87 percent, which means, on average, the current LAYS would have been achieved with 13 percent less spending if all countries were efficient. In other terms, making all countries as efficient as the most efficient countries in the sample could have saved, on average, 13 percent of the public expenditure on education. Efficiency is the highest in the category of high-income countries with an average efficiency score of 97 percent. In other terms, developed countries seem to have better abilities to make efficient use of education resources.

Bhutan is facing a relatively low efficiency level compared to other middle-income countries. Bhutan's efficiency score is 84.3 percent, which is lower than three-fourth of the countries in the sample. It is also lower than the average of the upper-middle income (87.6 percent) and the lower-middle income countries (85.2 percent). The efficiency score suggests that Bhutan could have achieved its current level of access to quality education with about 16 percent less spending if it was as efficient as the most efficient countries in the sample. In other words, improving the efficiency of resource utilization in the education sector has the potential to generate BTN 1804 million (15.7 percent of total annual education expenditure) in annual savings that could be re-invested in the sector. Re-investing these savings into the education sector could further contribute to improving learning outcomes and access to education for many children. While efficiency drivers are not investigated for Bhutan in particular, Miningou (2019) shows that overall, governance-related factors and countries' labor market conditions are two important sets of correlates for the efficiency of education expenditure.

b) Health Expenditure

Bhutan's health expenditure is high. Bhutan's current health expenditure per capita in PPP terms is significantly higher than its regional peers and countries in the similar income group (figure 3.26). Healthcare expenditures are predominantly financed by the government. As per the constitution, citizens receive free access to basic public health services, resulting in out-of-pocket expenditure lower than the upper middle-income countries. The current health expenditure is governed by several policies[48], including the 12th FYP. To facilitate equitable and sustainable quality health care and reduce the incidence of non-communicable diseases, the government is working towards building several large-scale hospitals during the 12th FYP period.[49]

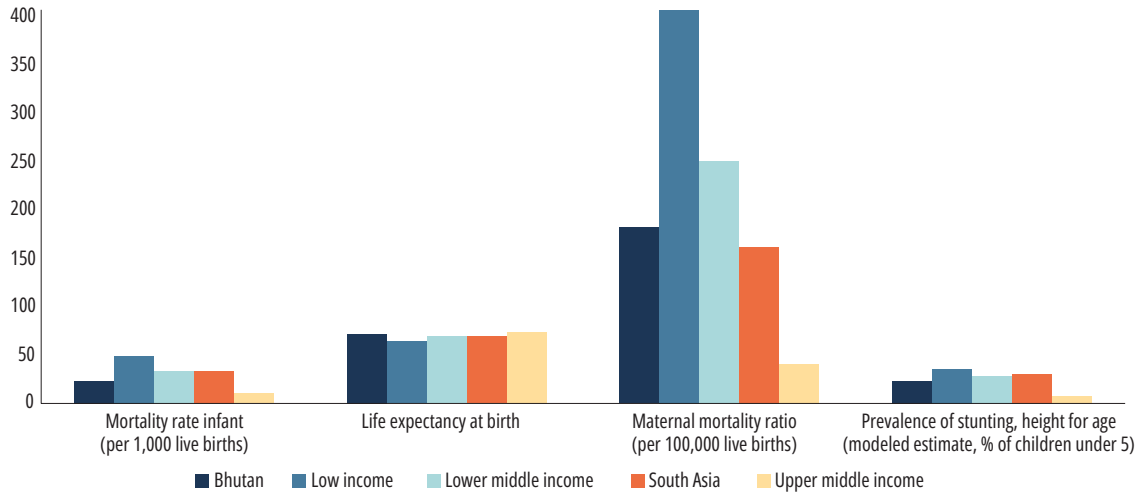
Figure 3.26: **Health expenditure and out of pocket expenditure**



Bhutan has achieved noteworthy improvements in health outcomes. In terms of life expectancy at birth, infant mortality rate, maternal mortality ratio, and prevalence of stunting, Bhutan performs better than the South Asian countries and the low and lower-middle income countries (figure 3.27). According to the Annual Health Bulletin 2022 published by the Ministry of Health, morbidity cases related to the respiratory system, water, sanitation, and hygiene maintained a downward trend in the last decade. Similarly, morbidity cases from non-communicable disease like hypertension and heart diseases have also declined. There was a linear decline in the last five years in incidences of the two most common causes of child mortality: diarrhea and pneumonia (Ministry of Health, 2022).

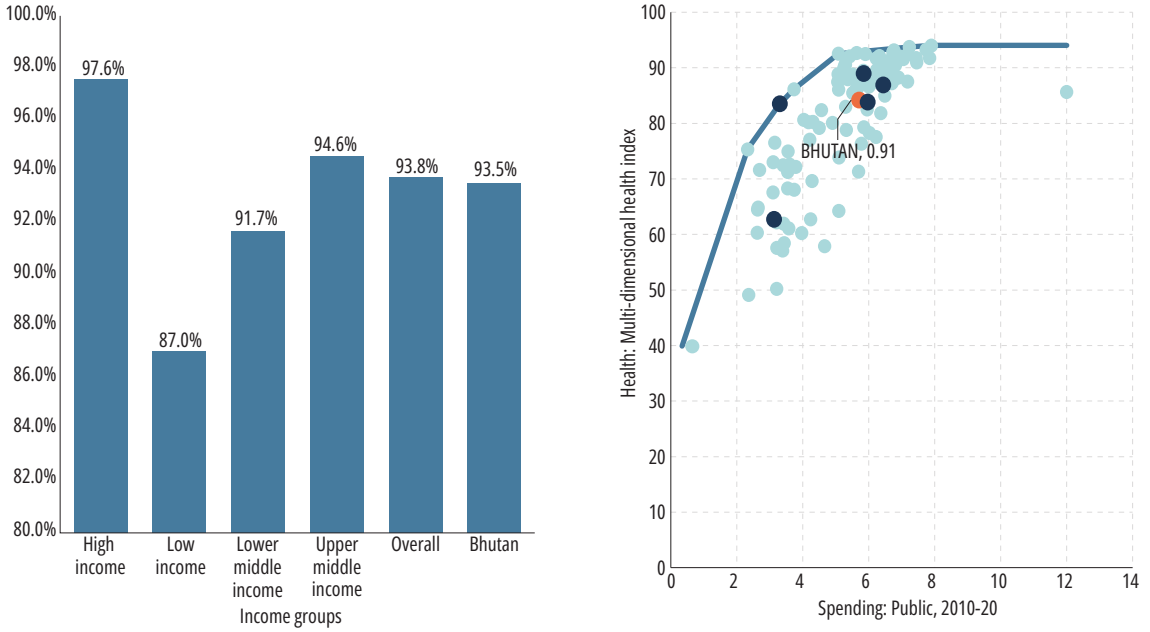
47 It is important to notice that this is a relative measurement of efficiency, and the results may vary if there are changes in the sample of countries considered or in the variables included in the analysis.
48 They include Multi- Sectoral National Action Plan for the Prevention and Control of NCDs (2015-2020), Mental Health Strategy and Action Plan (2015-2023) and the National Health Promotion Action Plan.
49 They include a 500-bed Multi-Disciplinary Super Specialty Hospital, a 65-bed MCH Hospital for eastern Bhutan in Mongar, and a 100-bed hospital in Thimphu

Figure 3.27: **Performance under different health indicators**



An efficiency analysis based on a stochastic frontier model indicate that Bhutan performs well compared to most countries in terms of health expenditure. Using health data from 164 countries, including 50 lower-middle-income countries (LMICs), an efficiency score is estimated by applying a similar model to the efficiency of education expenditure analysis in the previous section. The analysis investigates how health resources (per capita government domestic expenditure on health) are translated into health outcomes (healthy life expectancy at birth).[50] The results show that the efficiency score for Bhutan is 93.8 percent, higher than the low and lower-middle income country groups (figure 3.28, left panel). A similar efficiency score (91 percent) was derived by using data envelope analysis relating public spending in health to a multi-dimensional index comprising performance in immunization and life expectancy outcomes (figure 3.28, right panel).

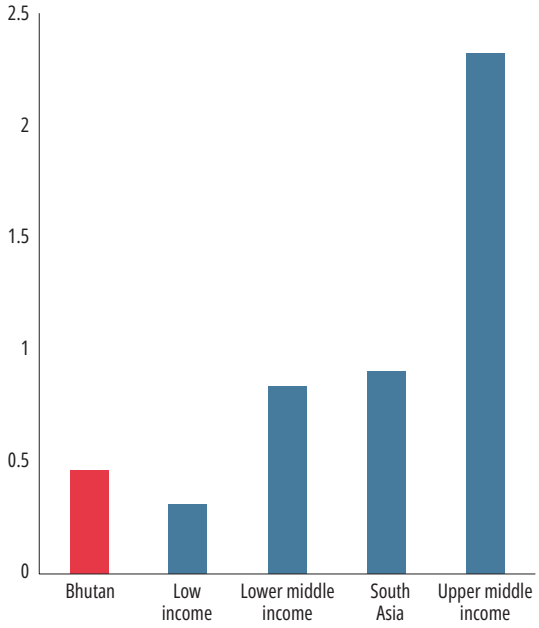
Figure 3.28: **DEA Frontier Analysis**



50 Three categories of control variables are used to take into account factors other than government expenditure that may impact the health outcomes indicator (household income level, aid to the health sector, and the quality of governance). The data covers the period 2010-2019 and were collected from the World Development Indicators database and World Health Organization (WHO). See Appendix 7 for a description of the stochastic frontier model.

However, critical challenges remain, and there is room to improve the quality and equity of health services. The efficiency indicators shows that the same level of health outcomes could have been achieved with approximately 6 to 9 percent fewer resources if health expenditure in Bhutan was as efficient as the most efficient countries in the sample. One potential area from improvement is the number of physicians. Bhutan's number of physicians per 1000 people is lower than the average of South Asian and lower-middle income countries (figure 3.29). There is a shortage of qualified doctors, particularly specialist. For complicated medical cases, Bhutanese are often referred abroad for treatment. There are also geographic disparities. For example, infant and under five mortality is higher in the eastern region than in the western and central regions and under-five mortality in rural areas is twice that in urban areas (World Bank, 2019). Mental health problems are on the rise. Other critical issues are the lack of targeted nutrition interventions for low-income and marginalized populations and limited geographic access to secondary care (World Bank 2020a).

Figure 3.29: **Physicians per 1000 people**

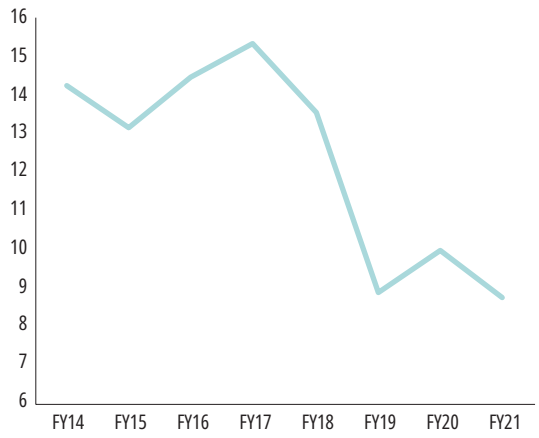


Section 4: Environmental Expenditure and Gender Expenditure

Public Environmental Expenditure

Bhutan is highly vulnerable to climate change and natural hazards. Due to its unique geographical location, Bhutan is exposed to a diversity of natural hazards, including floods, landslides, cloudbursts, windstorms, cyclones, river erosion, earthquakes, glacial lake outburst flood (GLOF), wildfire, and droughts. The country's economic development is dependent on climate sensitive sectors like hydropower generation and agriculture. The majority of the country's infrastructure is located along drainage basins that are vulnerable to flooding, particularly riverine flooding caused by heavy monsoon rains and glacial melt. The urban areas are vulnerable to urban flooding, and extreme heat in the south. Failures in assessing the climate risks properly and taking necessary steps could pose a catastrophic impact on the country's ability to sustain growth. RGoB's 12th FYP recognizes the urgency to enhance the country's climate and disaster resilience.

Figure 3.30: **Environmental expenditure as a % of total public expenditure**



Yet, Public Environmental Expenditure (PEE) as a share of total public expenditure has declined in recent years. To ascertain the size and composition of the Public Environmental Expenditures (PEE), the government published a Public Environmental Expenditure Review (PEER) in 2014. Initial findings of the ongoing PEER update indicate that the PEE as a share of total public expenditure has declined to 8.7 percent in FY20/21 from 14.3 percent in FY13/14 (figure 3.30). Most of the PEE has historically been financed by external sources, with contribution of RGoB declining in recent years. Over 90 percent of total PEE was capital expenditures.

Figure 3.31a: **PEE based on RGoB projects**

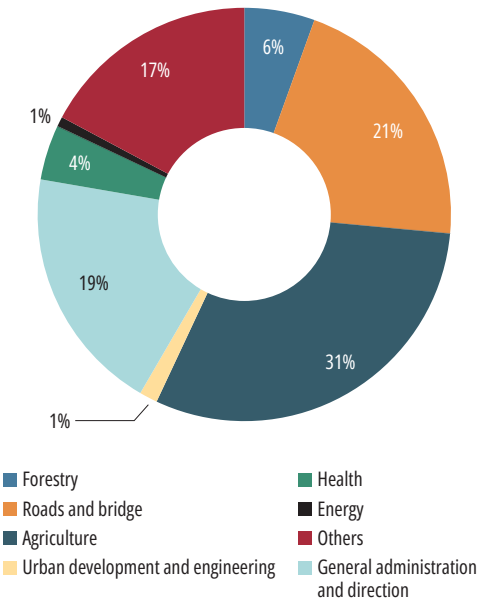
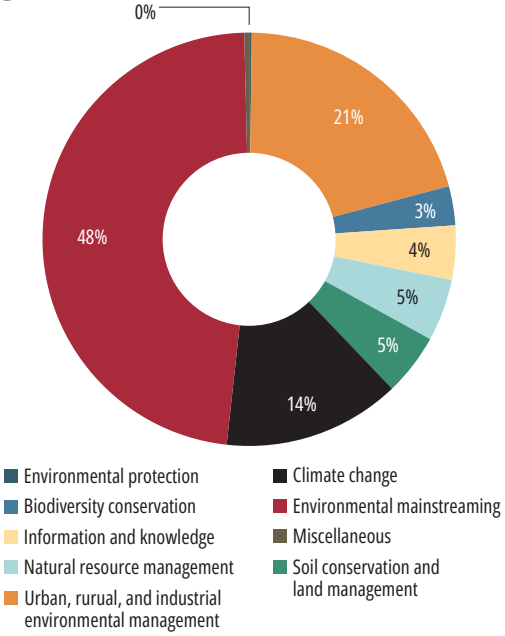


Figure 3.31b: **PEE based on environmental clusters**



Source: Public Environmental Expenditure Review (PEER) 2022

Projects related to roads, bridges, and agriculture are the major sources of PEE in Bhutan. Analysis of PEE based on RGoB projects reveals that more than half of total PEE during the period FY18/19-FY20/21 came from projects related to agriculture, roads, and bridges (figure 3.31a). Out of the nine environmental clusters based on PEER categorization, three major clusters dominate PEE: i) environmental mainstreaming; ii) urban, rural and industrial environmental management; and iii) climate change (figure 3.31b). Environmental mainstreaming includes all environmental related activity costs for road construction, including farm roads, access roads and feeder roads. The PEE with respect to climate change cluster is unclear as the RGoB program, activity and sub-activity budget codes do not capture climate change as a separate theme, except for specific climate change projects assisted by external funding. The climate cluster also includes investments in irrigation (as an adaptation measure), disaster risk reduction and mitigation projects.

PEE spending has become more decentralized in recent years, and the budget execution by the local governments outperformed the central government. Share of PEE by the central government, which includes the ministries, was 70.6 percent in FY18/19. By FY20/21, the share of the central government declined to 34.3 percent and the local governments, including the Dzongkhag and Gewogs, spent around 65.7 percent of total PEE in Bhutan (figure 3.32a). Budget execution rate for PEE remained below the rate for national budget and declined in recent years, reflecting relatively lower efficiency in this sector. However, the budget execution by the local governments constantly outperformed the central government (figure 3.32b).

Figure 3.32a: **Environmental expenditure by cental and local governments**

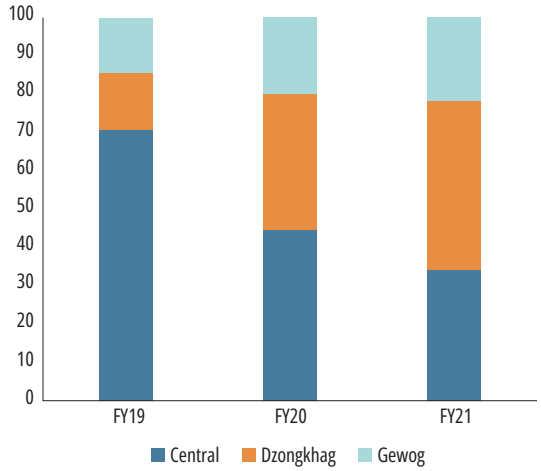
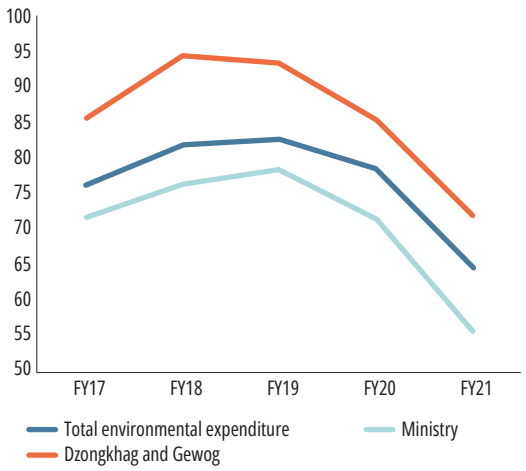


Figure 3.32b: **PEE budget execution rate by agencies**



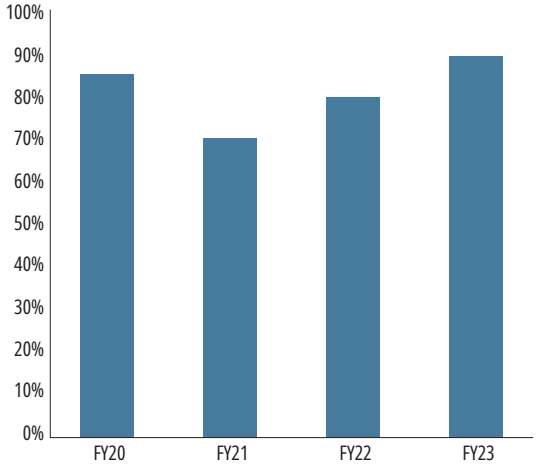
Source: Public Environmental Expenditure Review (PEER) 2022

Gender Expenditure

Bhutan has made slow but steady progress toward mainstreaming gender into budget allocation. Establishment of the National Commission for Women and Children (NCWC) in 2004 as an autonomous organization facilitated the Government's efforts toward gender mainstreaming. Since then, the designation of Gender Focal Points (GFPs) in all ministries/ departments and the constitution of a Gender responsive Planning and Budgeting (GRPB) Working Group chaired by the Director of the Department of National Budget (DNB) have been important institutional level changes (UN Women, 2016). The Royal Government of Bhutan (RGoB) and UN Women jointly developed a Strategic Framework for Gender Mainstreaming and GRPB in Bhutan in 2013, which laid down institutional arrangements and strategies to operationalize GRPB in the country. Currently, the MoF, through its Budget Call Notifications, notify the budgetary bodies to take into account gender perspectives while formulating their plans and programs. Promotion of gender equality and empowering women and girls is currently one of the 17 National Key Result Areas (NKRAs) in the 12th FYP.

Allocation to gender related activities was less than 1 percent of the total budget allocation in the last four years. The RGoB has started publishing gender budget allocation in the budget report since FY19/20. Despite the progress mentioned above, only 0.87 percent of the budget was gender relevant in FY19/20, which declined in the following two years before picking up again in FY22/23 (figure 3.33). Two Mother and Child Care Hospitals under the Ministry of Health constituted most part of the gender allocation in recent years (97.6 percent of total gender allocation in FY22/23).[51] The exact method of identifying the gender relevant allocation in the budget is unclear. Though the government intends to track gender related activities in the annual grants received by the local governments (Ministry of Finance, 2021b), currently gender relevant allocation at the local government level is not available.

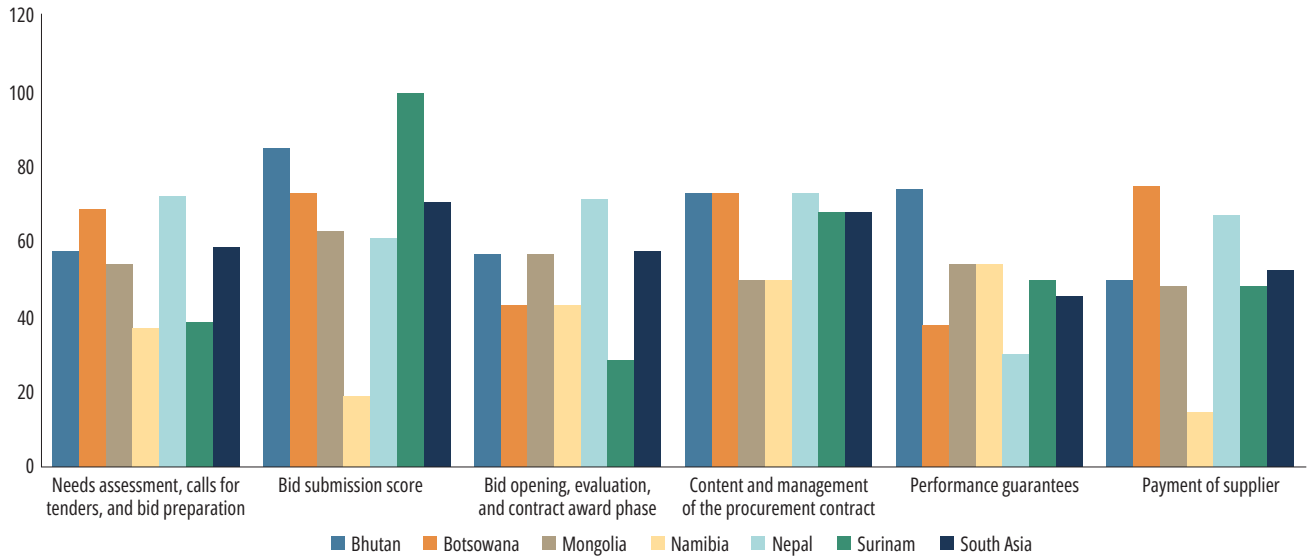
Figure 3.33: **Gender relevant budget allocation as a percentage of total budget**



Section 5: Public Procurement

Public procurement is an important aspect of government spending and Bhutan's public procurement system had major reforms in the last two decades. Public procurement is a significant part of government spending, and it is crucial to ensure that the procurement process is efficient, transparent and accountable. The procurement process is closely linked to the delivery of goods and services to the public, and an improvement in the process can reduce loopholes and help the government in saving considerable amount of public funds. In this respect, innovative techniques have been implemented to identify opportunities for significant efficiency savings without compromising quality, primarily via the strategic sourcing methodology (box 3.4).

Figure 3.34: **Public procurement indicator scores**

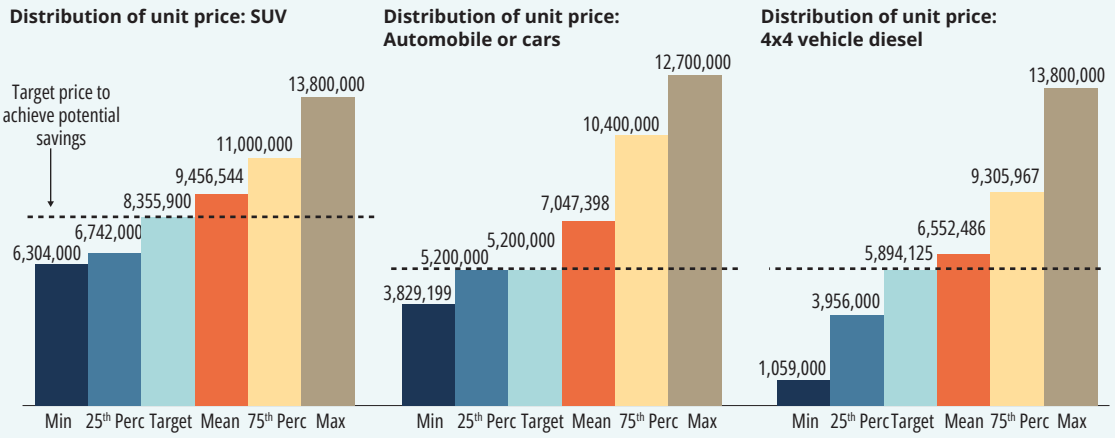


51 The two hospitals are Gyaltsuen Jetsuen Pema Mother and Child Hospital in Thimpu and a 65 bedded Mother and Child Hospital at Mongar

Box 3.8: Innovative approaches to finding efficiency savings in procurement of goods and services

Strategic sourcing methodologies are applied to help identify operational efficiency and cost-saving measures. Strategic sourcing refers to seeking institutional arrangements to maximize a purchasing entity's buying power, by attempting to understand and explain price differences across the whole public sector procurement process and identify customized strategies (demand consolidations, minimization of noncompetitive bidding, and so on) to maximize fiscal savings. Typically, this is achieved by using transaction-level data collected from the integrated procurement system to identify select purchase categories that are homogenous and for which framework agreements or consolidated procurements can be pursued whereby all needs are centralized and purchased centrally. In Kenya, for instance, the analysis revolved around two purchase categories, motor vehicles and IT assets, where, despite being quite homogenous, the unit price dispersion for motor vehicles was quite high. Savings were quantified by calculating differences between actual prices and median prices for each vehicle category equivalent to 1 percent of total procurement spending. The case for making efficiency gains by lowering costs through economies of scale, lower price dispersion, and reduced transaction costs was even more obvious for IT equipment, for which the PER documented that procurement expenses were almost three times higher before the introduction of a centralized procurement policy. Similar analysis undertaken in Ecuador, Costa Rica, and Peru (among others) resulted in identification of savings up to 20% of total procurement spending. The analysis can also reveal important predictors of efficient performance, including completion times and rates, market characteristics, organizational capacity, and the level of competition.

Figure 3.35: **Unit Price Dispersion for Vehicles, FY18/19**



The public procurement system in Bhutan had undergone significant development over the years. Following the creation of a procurement cadre in 2006 in the Royal Civil Service (RCS), Public Procurement Policy Division (PPPD) was created within the Ministry of Finance. Procurement Rules and Regulations (PRR) was drafted in 2009. The revised PPRD of 2019 established Government Procurement and Property Management Division (GPPMD) as the new procurement policy and professional development agency. In Bhutan, public procurement is decentralized to units in all budgetary (procurement) agencies (World Bank, 2020c). Phased development and implementation of the electronic Government Procurement System (eGP) since 2018 has improved procurement efficiency further.

The Benchmarking Public Procurement report by the World Bank compares procurement regulatory frameworks across the countries along several indicators. The indicators include: (i) needs assessment, calls for tenders, and bid preparation; (ii) bid submission phase; (iii) bid opening, evaluation, and contract award phase; (iv) content and management of the procurement contract; (v) performance guarantees; and (vi) payment of suppliers (table 3.2). Scores in each indicator can vary between 0 and 100, with higher scores indicating better performance.

Table 3.3: Indicators from the World Bank's Benchmarking Public Procurement Report

Needs assessment, call for tender, and bid preparation	This indicator aims at assessing the transparency and information flow at the preparation stage from the procuring entity's end. It looks at: (i) the consultation with the private sector; (ii) the tendering method; and (iii) potential bidders' accessibility to bidding information.
Bid submission	This indicator looks at the requirements for suppliers to place bids, including: (i) Registration with a government registry; (ii) Eligibility of foreign firms; (iii) Possibility of submitting bids online; (iv) Minimum time frame for bid submission; (v) Bid security requirements.
Bid opening, evaluation, and award	This indicator aims at assessing transparency at the bid opening and evaluation stages. It considers: (i) the method for opening the bids, including accessibility for bidders to the bid opening session; (ii) the fairness of the bid evaluation; (iii) notification and feedback to unsuccessful bidders; (iv) standardized contract form used when awarding a contract.
Content and management of the procurement contract	This indicator looks at: (i) the relevant procedural requirements; (ii) the possibilities of modifying or terminating the procurement contract when the contract is awarded and signed; (iii) the acceptance of the completion of works by the purchasing entity and related procedures.
Performance guarantee	This indicator looks at the performance guarantee, including the purchasing entity's monitoring of the requisite performance guarantee and its amount, return of such guarantee, and the existence of a separate entity to oversee the procuring entity's decision to withhold it.
Payment of suppliers	This indicator examines: (i) the procedure regarding suppliers' request for payment (ii) the time frame for the purchasing entity to process payment; (iii) the time frame for suppliers to actually receive payment; (iv) the interests or penalties available to suppliers in case of payment delays.

Source: World Bank, 2017b

Compared to its peers, Bhutan scores well in most procurement indicators. Bhutan is at par or better than the South Asian countries in five out of six indicators. Bhutan does particularly well in bid submission and performance guarantee indicators, scoring higher than almost all of its peers. Bhutan's high score in bid submission is driven by the fact that the bidders are required to register on a government registry before bidding and they get the maximum bid security with a bank guarantee and insurance guarantee. A high score in the performance guarantee indicator can be attributed to the existing requirement for the suppliers to provide performance guarantee deposit, available timeframe and criteria for the purchasing entity to collect and return performance guarantee. However, Bhutan scores lower than its regional peers and some of its aspirational peers on the payment for suppliers indicator. Currently, the suppliers can't request payment online through an online platform. Also, the payment process does not start from the time of supplier's invoice submission.

Section 6: Policy recommendations

Short term

As discussed in chapter 1, Bhutan will require fiscal consolidation in the short term to maintain a sustainable fiscal path. As a result, it will be important to reallocate spending to the most efficient sectors, prevent unnecessary spending, and deviate from the five-year plans when necessary. Bhutan could:

- **Adopt fiscal rules for countercyclical fiscal policy:** Bhutan's structural procyclical fiscal policy stance is a bottleneck towards achieving a sustainable fiscal path. The existing rule promotes fluctuation of government spending depending on the commissioning of the hydropower projects. This has led to volatility in the fiscal balance. The government could strengthen fiscal rules to make the fiscal policy more countercyclical. This will reduce fluctuations in aggregate demand and help build fiscal buffers. To manage the fiscal volatility associated with the commissioning of hydropower projects, the RGoB established the Bhutan Economic Stabilization Fund (BESF) in 2018 and has adopted fiscal stabilization measures, which regulate contributions to the fund. Operationalization of the fiscal stabilization measures that regulate contributions to and uses of the BESF could help achieve a more sustainable fiscal path.

- **Constraint the growth of spending on wages and salaries.** Increase in the large and highly rigid budget items like wages and salaries could be curbed before they build a strong momentum that is difficult to halt. Wages and salaries have risen significantly in Bhutan in the past decade and is expected to increase further once the recommendations in the Sixth Pay Commission report is implemented. The current need for fiscal consolidation provides an opportunity to adjust the wages and salary structure in such a way that keeps the public sector wages competitive, and at the same time comparable to the private sector. Since wages and salaries make up a large share of the current expenditure, it will be of paramount importance to keep the increase in wages and salaries at a manageable level (as identified in chapter 1) to ensure fiscal sustainability.

- **Prioritize development projects and focus on capital expenditure that attracts private investment:** Capital expenditures increased in the last fiscal year, reflecting continued fiscal support to boost economic activity through the frontloading of the 12th FYP (World Bank, 2022). Fiscal consolidation in the short to medium term envisioned under the MTMF described in chapter 1 would require more prudent capital spending. To achieve this, it will be important to prioritize projects and defer the implementation of projects that are less urgent for the economic development of the country. Appropriate planning and budgeting will be necessary to reduce the gap between capital budget allocation and actual execution. Additionally, focusing on capital expenditure that attracts private investment is vital for Bhutan's sustained private sector-driven growth. By improving connective infrastructure, such as major transport infrastructure, the country can overcome connectivity constraints, link producers to markets, and seize external opportunities for economic expansion and job creation (World Bank, 2022, 2020a). The government may also ensure adequate resources are allocated to maintenance expenses to maximize the life span of the stock of capital assets.

- **Prudent spending at the local level:** Due to the government's decentralization policy, capital budget allocation at the district level as a share of the total budget has increased by almost ten percentage points in the last decade. Moreover, the budget allocation for the delivery of public goods and services by districts is expected to double in the 12th FYP period from the 11th FYP. Since such a high level of expenditure can jeopardize fiscal sustainability, a more cautious approach could be taken to allocate budget at the district level. Since getting services to distant places is costly and inefficient, the government could look for alternate ways (i.e., the use of technology or mobile services) to reduce the cost of certain services. Since the provision of some important public services, such as water supply, can cut across several subnational governments, close coordination will be critical to ensure that resources are used effectively (World Bank 2020a).

Medium to long term

In the medium to long term, there are opportunities to strengthen spending on physical infrastructure and human development and address the structural challenges to foster sustainable economic growth. Bhutan could:

- **Reduce regional disparities in terms of budget allocation.** As discussed in section 3.4, while Bhutan does relatively well in allocating resources based on the poverty rates of the districts, there is room for improvement. Poorer districts like Samdrup, Trongsa, and Samste lack access to many facilities, yet allocation in these districts is relatively lower even after controlling for population. Due to Bhutan's unique geography, more than half of its people are still dispersed across the countryside. While it is important to ensure public services to these communities, it is important that subnational governments have adequate capacity to deliver these services effectively. Otherwise, the spending will not bring the desired outcomes.

- **Establish an efficient PIM system in line with good international practice**[52]**:** Bhutan needs an efficient PIM system that can foster economic growth needed for the country to reach the next income level. To achieve this, Bhutan could[53]:

  - Establish a sound and modern PIM legal and regulatory framework

  - Strengthen medium-to-long-term strategic planning of major infrastructure investments projects by introducing the preparation of Medium-Term Public Investments Plans (MTIPs) in line with medium-term budgetary framework

  - Strengthen project appraisal processes to ensure more transparent and credible investment decision making by enhancing the quality of economic analysis and establishing an independent review mechanism

  - Strengthen the role of the MoF project formulation in terms of first-level screening of large-scale projects with significant fiscal impacts, and selection and capital budgeting as well as performance responsive monitoring

- **Improve efficiency in education and health expenditure by addressing the weaknesses in the current system.** By allocating resources more efficiently, Bhutan can produce better quality teachers, enhance early childhood care, establish a robust tertiary education system, and equip individuals with the skills needed for a modern economy. The government's commendable reform initiatives to enhance the TVET system should continue, but there are further opportunities to align the curriculum with labor market demands. Similarly, Bhutan needs to expand health services to remote areas, develop capacity for handling health emergencies, and ensure spatial equity in healthcare provision. Investing in qualified doctors and devising a healthcare financing strategy will be crucial, especially in light of concerns regarding the sustainability of the free healthcare system after LDC graduation. Addressing these areas could improve the education and health outcome.

52
53 These suggestions are largely taken from the 'Strategic Diagnostic Assessment of the Public Investment Management System in Bhutan 2021' report

Reference

Alesina, A., Campante, F.R. and Tabellini, G (2008). *Why is Fiscal Policy Often Procyclcial?* Journal of the European Economic Association, Volume 6, Issue 5, 1 September 2008, Pages 1006–1036

Al-Samarrai, S., Cerdan-Infantes, P., and Lehe, J. D. (2019). *Mobilizing Resources for Education and Improving Spending Effectiveness: Establishing Realistic Benchmarks Based on Past Trends.* World Bank Policy Research Working Paper Series WPS8773.

Blanchard, O. and Perotti, R. (2002). *An empirical characterization of the dynamic effects of changes in government spending and taxes on output*. The Quarterly Journal of Economics, 117, 1329–68.

Cetrángolo, O., Jiménez, J.P., and Ruiz del Castillo, R. (2010). *Rigidities and Fiscal Space in Latin America: A Comparative Case Study*. Macroeconomía del Desarrollo Serie. Santiago, Chile April 2010

Bova, E., Medas, P., Poghosyan, T. (2018). *Macroeconomic Stability in Resource-rich Countries: The Role of Fiscal Policy.* Journal of Banking and Financial Economics. Vol. 9, Issue 1. PP 103-122.

Dahal, B.P. (2022). *The future of Technical and Vocational Education and Training: Are the young people prejudiced against it?* International Journal of Multidisciplinary Perspectives in Higher Education. Vol. 7, Issue 2.

Dissou, Y., Didic, S., and Yakautsava, T. (2016). *Government spending on education, human capital accumulation, and growth.* Economic Modelling, 58, 9–21.

Ethan Ilzetzki & Carlos A. Vegh, (2008). *Procyclical Fiscal Policy in Developing Countries: Truth or Fiction?* NBER Working Papers 14191, National Bureau of Economic Research, Inc.

Herrera, S. and Olaberria, E. (2020). *Budget Rigidity in Latin America and the Caribbean: Causes, Consequences, and Policy Implications*. Washington DC, World Bank.

Ilzetzki, E., Mendoza, E. and Végh, C. (2013) *How big (small?) are fiscal multipliers?* Journal of Monetary Economics, 60, 239–54.

Jung, H.-S., and Thorbecke, E. (2003). *The impact of public education expenditure on human capital, growth, and poverty in Tanzania and Zambia: A general equilibrium approach*. Journal of Policy Modeling, 25(8), 701–725.

Kempa, B. and Khan, N.S. (2015). *On the size of government spending multipliers in Europe*. Applied Economics. Volume 47, Issue 51, pp. 5548-5558.

Miningou, E.W. (2019). *Quality Education and the Efficiency of Public Expenditure: A Cross-Country Comparative Analysis.* World Bank Policy Research Working Paper no. 9077.

Merotto, D., Hayati, F., Stephan, D., and Bataille, W. (2015). *Dismal Science, Accounting and Newton's Second Law: Identifying Force and Rigidity in Public Expenditure Analysis*. Policy Research Working Paper 7431. Washington, DC: World Bank.

Ministry of Finance (2021a). S*trategic Diagnostic Assessment of the Public Investment Management Systems in Bhutan*. Ministry of Finance, Royal Government of Bhutan.

Ministry of Finance (2021b). *National Budget Financial Year 2021-22*. Ministry of Finance, Royal Government of Bhutan. Thimpu, Bhutan.

Ministry of Health (2022). *Annual Health Bulletin.* Ministry of Health, Royal Government of Bhutan. Thimpu, Bhutan.

Ministry of Labor and Human Resources (MoLHR) and World Bank, 2013. *Bhutan's Labor Market: Toward Gainful Quality Employment for All*. Washington, DC: World Bank Group.

Royal Civil Service Commission (2022). *Annual Report: State of the Royal Civil Service.* Royal Civil Service Commission, Royal Government of Bhutan. Thimpu, Bhutan.

Royal Government of Bhutan (2022). *Report of the Fifth Pay Commission*. Thimpu, Bhutan.

Santini, M., Tran, T, Beath, A. (2017). *Investment Climate Assessment of Bhutan : Removing Constraints to Private Sector Development to Enable the Creation of More and Better Jobs*. World Bank, Washington, DC.

Schmillen, A.D (2016). *The Public/Private Wage Differential in the Land of Gross National Happiness.* World Bank Policy Research Working Paper 7925.

World Bank (2017a). *Myanmar Public Expenditure Review: Fiscal Space for Economic Growth.* Washington, DC: World Bank.

World Bank (2017b). *Benchmarking Public Procurement: Assessing Public Procurement Regulatory Systems in 180 Economies.* Washington, DC: World Bank.

World Bank (2017c). *Leaning Against the Wind: Fiscal Policy in Latin America and the Caribbean in a Historical Perspective.* Washington, DC: World Bank.

World Bank (2019). *Bhutan Development Report: A Path to Inclusive and Sustainable Development.* Macroeconomics, Trade and Investment (MTI) Global Practice. Washington, DC: World Bank.

World Bank (2020a). *Bhutan Systematic Country Diagnostic*. Washington, DC: World Bank.

World Bank (2020b). *Procurement Policy Note Strengthening Public Procurement Legislation.* Washington, DC: World Bank.

World Bank (2020c). *Royal Government of Bhutan Procurement Policy Note*. Washington, DC: World Bank.

World Bank (2021). *Bhutan Development Update*. Washington, DC: World Bank.

World Bank (2022). *Bhutan Development Update*. Washington, DC: World Bank.

United Nations Women (2016). *Gender Responsive Planning and Budgeting in Bhutan: From Analysis to Action.* New Delhi, India.

Chapter 4

Turning Bhutan's State Enterprises into a Development Asset

Section 1: Introduction

This chapter was prepared by drawing on the World Bank's Integrated State-Owned Enterprise Framework (iSOEF), particularly its module 4, Corporate Governance and Accountability Mechanisms and module 5, Fiscal Costs and Risks. The chapter is organized as follows: 1) introduction; 2) overview of the Bhutan State Enterprise (SE) landscape; 3) SE fiscal risks; 4) state ownership function, legal, and institutional framework of SEs; and 5) recommendations.

Given Bhutan's geography and small population, providing infrastructure and services is costly and economies of scale are difficult to achieve. As private sector was not able to deliver critical services and infrastructure, SEs have been a critical part of Bhutan's development strategy since the 1960s. SEs have consequently been key actors of Bhutan's development achievements. Total assets of SEs amounted to 171.1 percent of GDP in 2020, up from 142.3 percent in 2017 and SEs in Bhutan remain important actors with presence in strategic and economic sectors including power, telecommunications, transport, manufacturing, finance, trade, agriculture, and natural resources.

SEs generate substantial budget revenues and jobs. Meanwhile, mixed, and volatile levels of profitability and performance challenges indicate that Bhutan's portfolio of SEs are yet to operate at their optimal level of efficiency. SEs pose four main sources of fiscal risk: i) very heavy dependence of budget revenues on the hydropower sector, which accounts for around half of all budget revenues and which is quite volatile; ii) subsidies required to fund the quasi-fiscal activities of BPCL, notably the provision of power to rural consumers at prices which are well below the full cost of supply; iii) weak financial performance of many of the real sector SEs, some of which hold substantial liabilities; and iv) the potential financial distress in the financial sector, which is dominated by state owned financial institutions.

Overall, Bhutan has improved its legal, regulatory, and institutional framework to manage SEs over the past years. There are nevertheless still key SE policy gaps, i.e., ownership policy and dividend policy yet to be issued, challenges in SE debt and investment management and corporate governance oversight, consolidated reporting and quality and timeliness of SE financial reporting and audits. A SE performance management system has been established but will require improvements.

The chapter makes recommendations (section E for detailed list of recommendations) including:

Oversight	(i) Introduce a more centralized ownership model with clear reporting lines and responsibilities; and (ii) Strengthen MoF oversight role of all SEs and MoF – DHI collaboration; issue corporate governance code as required by the Companies Act and harmonize existing codes.
Performance management	Review and assess DHI and MoF's performance-based compensation.
Transparency and disclosure	(i) Publish annually an expanded SE report including SE financial and non-financial performance; (ii) Expand SE database to include more information on corporate governance including procurement, SE human resources and non-financial performance. (iii) Expand financial auditing and reporting to cover all loans and guarantees;(iv) enhance coverage and quality of SE financial reporting; and (v) strengthen quality and timelines of SE Audit reports.
Board professionalization and diversity	(i) Scale-up training and establish clear appointment criteria of Board members and CEOs consistent across SEs; and (ii) increase the share of private sector representatives and females in Boards.

Section 2: Overview of the SE Landscape in Bhutan

2.1 Role of SEs in the Economy

SE in Bhutan have been a critical part of the Country's development strategy. SEs have been a critical part of Bhutan's development strategy since the 1960s. Bank of Bhutan (BoB) was the first SE in the country and operated both as a central bank and commercial bank until 1982 when the Royal Monetary Authority (RMA) was created[54]. In the 1970s and 1980s several SEs were created to develop the manufacturing, hydropower, forestry, and mining sectors.

While Bhutan promotes a private sector led development approach since the 1990s, SEs continue playing an important role for Bhutan's development. Since the 1990s, the Royal Government of Bhutan's (RGoB) has focused on a private sector led approach to development. Consequently, the RGoB policy shifted to partial privatization and divestment of SEs and promotion of private sector development to stimulate growth. Some sectors such as telecommunication were opened-up for competition. Meanwhile, SEs remained critical to Bhutan's development. Driven by the RGoB's dual strategy to (i) harness the hydropower potential by developing new hydropower plants and associated services, and (ii) promote economic diversification and job creation, their number increased from 18 in 2005 to 39 in 2020[55]. The number of sectors in which SEs operate also increased from 6 in 2005 to 10 in 2020 (table 4.1). Overall, SEs have been critical to Bhutan's development and have contributed to increase access to electricity, internet and mobile-phone, transport, housing, and financial services.

Table 4.1: **Bhutan SE by Sectors and Years**

	2005		2017		2020	
	Number	%	Number	%	Number	%
Agriculture, Forestry and Fishing	0	0%	3	8%	3	8%
Arts, Entertainment and Recreation	0	0%	1	3%	1	3%
Construction	0	0%	2	5%	2	5%
Electricity, Gas, Steam and Air Conditioning Supply	4	22%	6	15%	6	15%
Financial and Insurance	2	11%	5	13%	5	13%
Information and Communication	3	17%	4	10%	4	10%
Manufacturing	5	28%	10	26%	10	26%
Mining and Quarrying	0	0%	1	3%	1	3%
Transportation	2	11%	3	8%	3	8%
Wholesale and Retail Trade	2	11%	4	10%	4	10%
Total	**18**	**100%**	**39**	**100%**	**39**	**100%**

Source: SE Annual Reports, World Bank SOE and Corporate Governance Bhutan, 2007, World Bank Staff Calculations

54 www.bob.bt
55 As part of the 11th five-year plan 2013-18, twelve additional SEs were created.

The 39 SEs are divided between three different shareholders under the umbrella of the MoF with commercial and non-commercial objectives. In line with the Public Finance Act (PFA), the Ministry of Finance (MoF) holds the RGoB's share of all SEs and is responsible for monitoring and reporting the performance of SEs. MoF, in 2020, was responsible for 16 SEs, including DHI, with assets and liabilities totaling 79.1 billion and 69.6 billion Nu, respectively. Druk Holdings and Investments, fully owned by the MoF, managed 21 SEs with assets and liabilities totaling 214.3 billion and 130 billion Nu, respectively. Companies under DHI are profit oriented SEs in the manufacturing, electricity, and communication sectors, while SEs under MoF undertake non-commercial objectives as well. The quasi-fiscal activities for MoF SEs include buyback schemes of agriculture products from small farmers, concessional finance for housing, and public service broadcasts among various other activities.

Bhutan's SEs contribute to a significant part of economic activities and budget revenues. Total assets of SEs amounted to 171.1 percent of GDP in 2020, up from 142.3 percent in 2017. During the same period, average annual growth of SE liabilities was 10.9 percent, bringing SE liabilities to 116.3 percent of GDP in 2020. Total revenues of SE's diminished from 31.5 percent of GDP in in 2017 to 28.2 percent of GDP in 2020 driven by a decline in revenues from the hydro SE Druk Green Power Corporation (DGPC), and the impact of COVID-19 on SE revenues. The SEs make substantial contributions to budget revenues, ranging between 32 percent and 58 percent of total revenues per annum between 2016 and 2020. The largest SEs, presented in table 4.2, accounted for 95 percent[56] of RGoB SE assets in 2020.

Table 4.2: Largest SEs by assets and their employment in 2020

Entity	Shareholder	Sector	Total Assets (Nu bn)	Employees
Bank of Bhutan Limited (BOBL)	DHI	Financial and Insurance Activities	87.2	820
Druk Holding and Investments (DHI) (Standalone)	MoF	Financial and Insurance Activities	66.1	62
Druk Green Power Corporation (DGPC)	DHI	Electricity and gas	56.0	1,700+
National Pension and Provident Fund Limited (NPPF)	MoF	Financial and Insurance Activities	41.0	183
Bhutan Power Corporation Limited (BPC)	DHI	Electricity, Gas, Steam and Air Conditioning Supply	35.0	2,326
Bhutan Development Bank Limited (BDBL)	MoF	Financial and Insurance Activities	27.9	622
Dungsam Cement Corporation Ltd (DCCL)	DHI	Manufacturing	9.7	no data
Druk Air Corporation Ltd (DACL)	DHI	Transportation and Storage	9.6	495
Bhutan Telecom Limited	MoF	Information and Communication	7.2	656
National Housing Development Corporation Limited	MoF	Construction	4.2	171

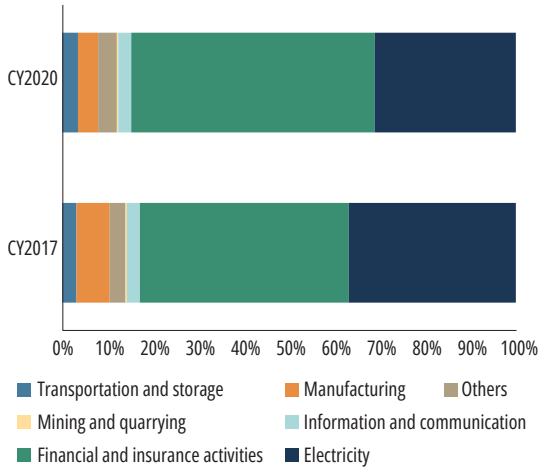
Source: SEs annual report and WB staff calculations

The SE sector is present across key sectors of the Bhutanese economy and is responsible for providing essential services and infrastructure. SEs are concentrated in strategically important sectors including electricity (primarily in hydropower generation and electricity distribution), manufacturing, and the financial sector. Other sectors in which they operate include air transport, mining, agriculture, communication, Information and Communication Technology (ICT), and healthcare. The energy and financial sector are the largest sectors by assets totaling 85 percent of total assets in 2020, up from 82 percent in 2017 (see Figure 4.1). These two sectors also hold the highest share of SE liabilities, 88.2 percent of total SE liabilities in 2020, up from 87.4 percent in 2017. The largest non-financial SEs in terms of assets are concentrated in the energy, manufacturing, and transport sector, totaling 85 percent of non-financial sector assets in 2020. They also hold most liabilities, totaling 84 percent of non-financial sector SE liabilities in 2020.

56 As DHI is a holding company it is not included in the calculation.

SEs generate a significant number of jobs. They employed almost 13,000[57] persons as of 2020, or 4.1 percent of the total labor force, compared to 30,000 employees in the civil service.[58] SE Employment is concentrated in the energy, financial and manufacturing sector respectively with 31.5 percent, 14.8 percent, and 15.5 percent of SE jobs. Construction and Information and Communication also have a significant share of SE jobs with a share of 8.8 percent and 9.6 percent, respectively. Remaining SE jobs are distributed in wholesale and retail trade, transportation and storage, agriculture, arts, entertainment and recreation and mining and quarrying. Total employment in SEs increased by 27 percent between 2017 and 2020. The sectors with the highest employment growth were mining and quarrying (185 percent), followed by manufacturing (172 percent), financial sector (156 percent), transportation and storage (109 percent) and construction (51 percent). SE employment in wholesale and retail trade and the energy sector contracted by 20 percent and 8 percent, respectively.

Figure 4.1: **Distribution of SEs' Assets by Sector**

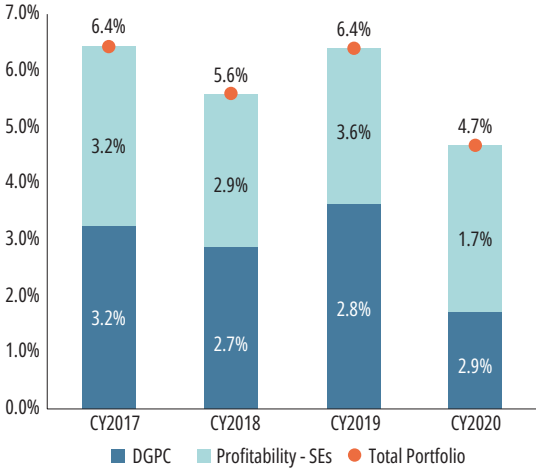


Source: SEs annual reports and World Bank S.taff calculations.

2.2 Financial performance of the SE portfolio

The SEs overall have consistently reported profits, driven by the electricity sector. However, overall profitability declined by over 25 percent since 2017, from 6.4 percent of GDP to 4.7 percent of GDP in 2020 (Figure 4.6). The electricity sector, particularly DGPC, the SE that operates and maintains hydropower assets, is the major contributor to overall profitability, generating profits averaging around 3 percent of GDP annually for the past four years (Figure 4.2). While the profitability of DGPC improved between 2019 and 2020, profitability of other SEs declined by 52 percent, reflecting the impact of COVID-19 on SE's operations. Consequently, the profitability of the SE portfolio contracted by 26.56 percent between 2019 and 2020.

Figure 4.2: **Profitability of the SE portfolio (percent of GDP)**



Source: World Bank staff calculation based on SEs annual reports.

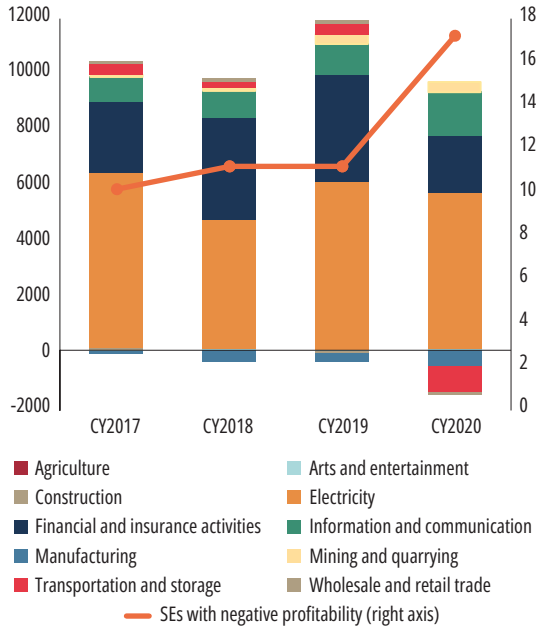
Profitability of SEs across sectors have shown mixed and volatile performance and profitability is lower in competitive sectors. The remaining SE portfolio's profitability is more volatile due to the deteriorating operational performance of some SEs, including DACL, DCCL, and Construction Development Corporation (CDCL). Overall, SE sector profitability was driven by the electricity, finance and information and communication sector. Electricity sector profitability has been volatile. Declining between 2017 and 2018, it increased between 2018 and 2019 and then declined between 2019 and 2020. Information and communication SEs have seen a steady increase in profitability between 2017 and 2020. SEs in the financial sector observed profitability increases between 2017 and 2019 before COVID-19 brought the sector's profitability below the level observed in 2017. In 2020, profitability was also impacted by exceptional subsidies to numerous SEs in agriculture, wholesales, manufacturing, transport, information and communication, and electricity totaling Nu. 2.3 billion. SEs in two sectors, manufacturing, and agriculture, have had negative profitability between 2017 and 2020 (adjusted for

57 Estimate based on data in SEs annual reports. The estimate is likely below actual numbers as several SEs do not report employment data in their annual reports.
58 Table 4.1, Statistical Yearbook 2020, NSB

subsidies). Construction sector SEs profitability have been on a declining trend since 2017 and turned negative in 2019. COVID-19 had a significant impact on 2020 profitability (see figure 4.3) with the number of SE with negative profitability increasing from 11 in 2018 and 2019 to 17 in 2020. Overall, SE profitability in competitive sectors i.e. manufacturing, retail, construction and transport is lower than in non-competitive sectors.

The return on assets (ROA)[59], a financial performance indicator of a company, is relatively low in most sectors and negative in some. While the ROA is a result of many factors such as demand and supply dynamics as well as exogenous shocks, the ROA indicates how profitable a company is in relation to its total assets. The mining sector, represented by the State Mining Corporation Limited (SMCL), registered the highest ROA at 27 percent, with an increase in profits of 268 percent after the acquisition of Khothakpa Gypsum Mines in 2019.[60] The electricity and financial sectors, the largest SE sectors in terms of assets and employees, have low ROAs (table 4.3 and 4.4). Due to COVID-19, four sectors registered negative ROA in 2020 compared to two sectors in 2019. The lowest ROA in 2020 was observed in the transport and storage (-8.9 percent) followed by manufacturing (-4.6 percent), wholesale and retail trade (-2.7 percent), and construction (-0.2 percent). The ROA is a result of many factors such as demand and supply dynamics as well as exogenous shocks. SE specific factors such as corporate governance and SE management also have a significant impact on the ROA through investment, human resource, and operational decisions, which in turn can affect cost and revenues, equity, and liability as well as profitability.

Figure 4.3: **SE profitability by Sector excl. DHI standalone (Nu million)**



Source: World Bank staff calculation based on SEs annual reports

Table 4.3: **Average SE ROA by sector, 2020**

	Assets (Nu bn)	ROA (%)
Agriculture, forestry, and fishing	1.7	1.0
Arts, entertainment, and recreation	0.1	10.0
Construction	6.7	-0.2
Electricity	91.1	6.2
Financial and insurance activities	157.6	1.3
Information and communication	8.7	18.1
Manufacturing	12.6	-4.6
Mining and quarrying	1.4	26.7
Transportation and storage	10.1	-8.9
Wholesale and retail trade	3.5	-2.7
Total	**293.5**	**2.7**

Source: World Bank staff calculation and SEs annual reports.

Table 4.4: **Average SE ROA by sector, 2017**

	Assets (Nu bn)	ROA (%)
Agriculture, forestry, and fishing	0.8	-7.4
Arts, entertainment, and recreation	0.1	16.9
Construction	5.3	1.6
Electricity	83.9	7.4
Financial and insurance activities	104.3	2.4
Information and communication	6.6	13.6
Manufacturing	16.4	-0.4
Mining and quarrying	0.4	18.5
Transportation and storage	7.3	5.5
Wholesale and retail trade	1.9	5.9
Total	**227.1**	**4.5**

Source: World Bank staff calculation and SEs annual reports.

59 ROA is effective to measure company performance as it measures both income performance and the assets required to run it, hence capturing how effective a company is in converting the money it invests into net income.
60 State Mining Corporation Limited, Annual Report 2019

SEs under the MoF have a lower ROA than SEs under DHI. ROA for DHI SEs averaged 4 percent between 2017 and 2020 against 3.3 percent for MoF SEs. ROA for SEs under DHI were higher than for SEs under MOF for all years except 2018 (figure 4.4). This reflects a concentration of profit-making SEs under DHI. Between 2017 and 2020, four of the top five profit making companies were under DHI and three of the top five loss making SEs were under MoF. In 2020, DHI reported net income equivalent to 3.6 percent of GDP resulting in an ROA of 2.8 percent and of which 80 percent was generated by DGPC. DHI linked companies (companies in which DHI have investments but that are not controlled by DHI) reported losses of 0.2 percent of GDP. The profitability in companies under MoF is primarily driven by NPPF (contributing 1.2 percent of GDP). The remaining MoF portfolio performed poorly and lost 0.2 percent of GDP which reflects a combination of governance and structural challenges, including the non-commercial nature of SEs under MOF which undertake quasi-fiscal activities without adequate compensation.

SE liabilities have increased and SEs under the MoF borrow to undertake some of the non-commercial mandates. SE liabilities have increased by 35 percent between 2017 and 2020. DHI observed the highest increase in liabilities. Outstanding loans (external borrowing on lent from MOF to SEs) increased by a total of 148 percent. SEs under MoF observed the highest increase in outstanding loans. Also, the SEs under MoF have a debt-to-equity ratio of 7.3, the highest among the whole portfolio (see figure 4.5). Most of this debt is domestic and 9.4 percent was debt on lent from MoF and explicitly guaranteed by the RGoB. Under MoF, 10 out of 15 SEs reported a loss, partly attributable to an increase in quasi-fiscal activities during the COVID-19 pandemic[61] as the RGoB used the SEs to provide various relief measures to the population[62]. However, there are still a few SEs that have consistently reported losses in the past four years including the Food Corporation of Bhutan Limited (involved in trading of fast-moving consumer goods (FMCG) and supply of essential food items), Farm Machinery Corporation Limited (company responsible for provision of machinery to farming community) and National cottage and small industries development bank limited (NCSIDBL) (involved in financing of cottage and small industries).

Figure 4.4: **ROA of SEs by Shareholder**

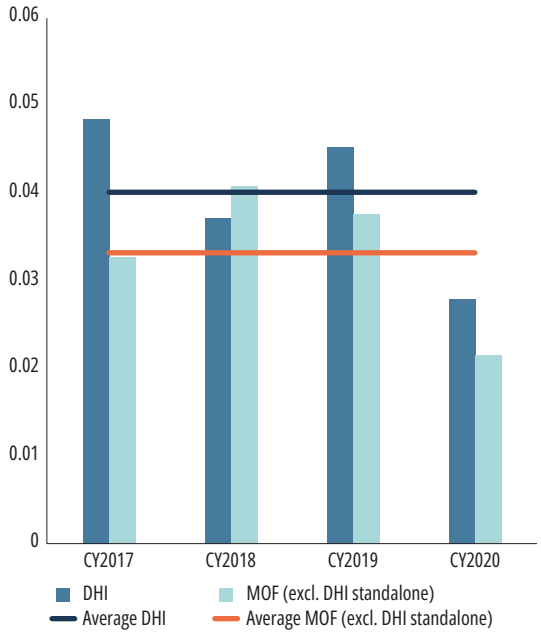
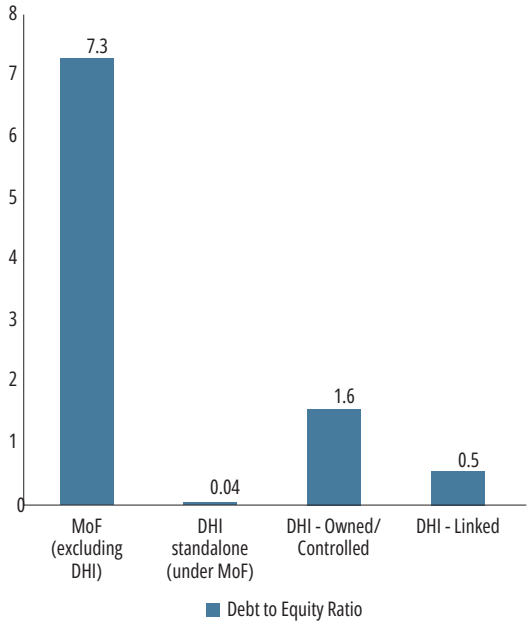


Figure 4.5: **2020 Debt to Equity Ratio by Shareholder**

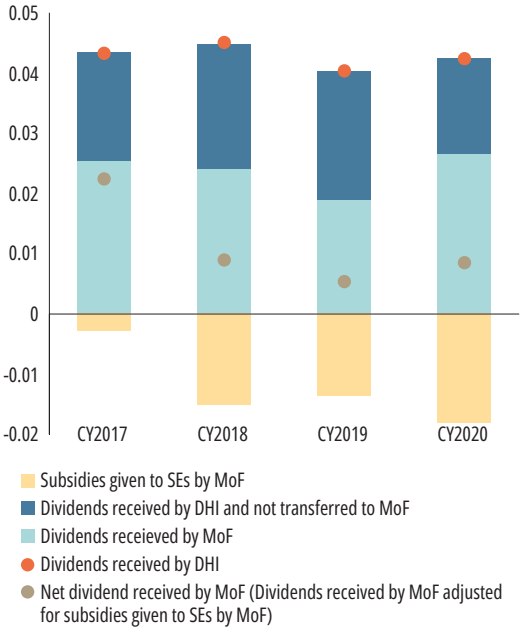


Source: SE annual reports and World Bank Staff Calculations

61 State Enterprises Annual Report CY2020, ICGD, Ministry of Finance
62 for example: the BBSCL ran a COVID-19 awareness campaign throughout the country, Bhutan Development Bank Limited (BDBL) provided 3-month interest cost waiver to over 52,000 loan account holders etc.

Dividends have been stable but net dividends are low due to significant SE subsidies. DHI received annual dividends averaging 4.3 percent of GDP between 2017 and 2020 period with little year-on-year variation (figure 4.6). During the same period, the dividend DHI paid MoF averaged 2.4 percent of GDP, also with little year-on-year variation. This corresponds to an average payout rate of 55 percent. Following an increase by 408 percent between 2017 and 2018, subsidies paid by MoF to SEs have averaged 1.6 percent of GDP. Consequently, net dividend (dividend received minus subsidies given to SEs) averaged 0.7 percent of GDP between 2017 and 2020.

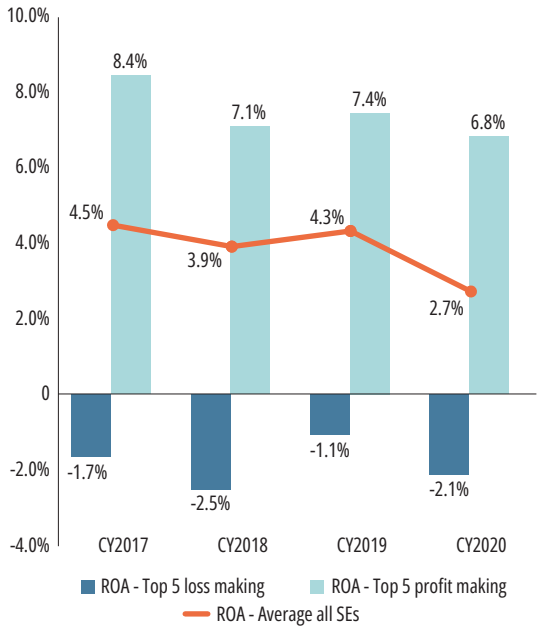
Figure 4.6: **SE Dividends and subsidies 2017-20 (% of GDP)**



Source: SE annual reports and World Bank Staff Calculations

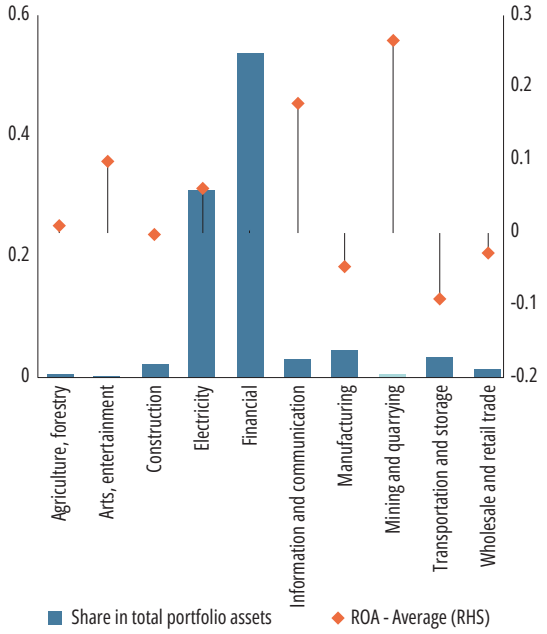
SE performance of the top five profit and loss-making SEs was stable over the past years and smaller SEs (by assets size) outperformed other SEs. The top five profit making SEs[63] have been the same since 2017 and have averaged 7.4 percent ROA against 3.9 percent ROA for all SEs (figure 4.7). Three of the top 5 profit making SEs observed a reduction in profitability between 2017 and 2020, mainly driven by the impact of COVID-19. The top five loss-making SEs have also been the same since 2017 and have collectively lost an average of 0.4 percent of GDP annually. Dungsam Cement Corporation is by far the largest loss-making SE, which cumulatively lost Nu. 2.3 billion, representing close to 70 percent of the losses. Smaller SEs, measured by asset, have outperformed larger SEs (figure 4.8). Hence, the mining sector generated an average of 27 percent ROA in CY2020. Similarly, Bhutan lottery (the only company operating in entertainment sector) and communications sector generated 18 percent and 10 percent ROA respectively.

Figure 4.7: **Comparison of return on assets (%)**



Source: SE Annual Reports and Word Bank Staff Calculations

Figure 4.8: **Share in assets and ROA (percent)**



Source: SE Annual Reports and Word Bank Staff Calculations

63 DGPC, NPPF, BTL, BPCL and SMCL.

Box 4.1: RMA Loan to DHI and DHI's Strategic Investment in crypto asset mining

From 2021 to 2022, DHI borrowed $539 million from RMA by issuing foreign currency bonds to RMA, to invest in a crypto asset mining project. These bonds have a 3-year term and a 1.5 percent interest rate. The RMA Board approved this bond subscription as allowed by the RMA Act of 2010. The funds are kept in a separate account until they are needed.[64] RMA financed the purchase of the bonds by using official international reserves, resulting in a significant decline of international reserves in FY21/22. DHI used the proceeds of the bonds to import information technology (IT) equipment and related goods for crypto mining,[65] significantly widening the current account deficit (CAD). To account for the use of foreign reserves for the RMA loans to DHI, the reserves were retroactively adjusted to US$970 million for December 2021, from US$1.437 billion in the old series.

The RGoB has taken important steps towards disclosure of these transactions. The DHI loans and the projected repayment of the loans are reflected in the 2021 SOE report and the 2023 national DSA. The DHI loans are also reflected in the RMA 2021 and 2022 annual report, but they are not reflected in the DHI 2021 and 2022 annual report. The macroeconomic framework reflects the liabilities from these transactions and also the imports of related IT equipment are reflected in the trade statistics. However, the assets and potential revenue streams from any bitcoins produced and traded (exported) have not been reflected in DHI's annual reports and the macroeconomic framework.

DHI recently announced a partnership with Singaporean based Bitdeer, one of the world's largest Bitcoin mining companies, to build a 100 megawatt (MW) data center in Bhutan for Bitcoin mining using green hydropower energy. The joint venture seeks to mobilize private funding in the amount of US$500 million to invest in bitcoin mining in Bhutan.[66]

All loans to DHI and the investments made by the DHI are not adequately reflected in its annual reports. SE liabilities significantly increased in 2021 due to a series of sizable loans from RMA to DHI, totaling US$539 million (21 percent of FY21/22 GDP). The loans were not reflected in the 2021 DHI Annual Report. The loans are mentioned in 2021 annual SE report but are not reflected in the financial data and the report states that the DHI loan is treated "off balance"[67]. It has been reported that loans were used to procure digital asset mining equipment. As a result of the DHI loans, international reserves were retroactively adjusted from US$1.437 billion to US$970 million in December 2021. Overall, there is limited information on the loans, raising concerns about corporate governance and transparency (see box 4.1).

64 https://www.mof.gov.bt/wp-content/uploads/2023/06/Bhutan-SOE-Annual-Reportjune03202301.pdf page 16
65 https://thebhutanese.bt/dhi-confirms-that-it-is-mining-digital-assets/ https://www.forbes.com/sites/iainmartin/2023/04/15/the-tiny-kingdom-of-bhutan-secretly-held-millions-of-dollars-in-cryptocurrency/?sh=57d990577f1d https://www.ft.com/content/1590e1dd-f278-47ff-aae0-2d1f3b0003cb
66 https://www.binance.com/en-IN/feed/post/548745
67 MoF (2022). *Bhutan State Enterprises Report: Annual Performance Review for the Calendar Year 2021*. Investment and Corporate Governance Division, Ministry of Finance.

Section 2: Fiscal Risks Stemming from SEs

There are major vulnerabilities in the fiscal position. Some of these vulnerabilities reflect the small size and hence lack of diversity of the Bhutanese economy, which unavoidably enhance vulnerabilities to fiscal shocks. In addition, fiscal risks arise from the operations of the SE sector, which has a dominant presence in several sectors of the economy. The SE sector poses four main sources of fiscal risk. The first is the very heavy dependence of budget revenues on the hydropower sector, which accounts for around half of all budget revenues and are quite volatile. The second is the subsidies required to fund the quasi-fiscal activities of Bhutan Power Corporation Limited, notably the provision of power to rural consumers at prices which are well below the full cost of supply. The third is the weak financial performance of many of the real sector SEs, some of which hold substantial liabilities. The fourth is the potential financial distress in the financial sector, which is dominated by state owned financial institutions.

The remaining part of section 2 is organized as follows. First direct transactions between the Government budget and the SEs are examined. Subsequently, where possible, the main sources of fiscal risk from the SEs, using the framework of the fiscal risk matrix are identified. This is followed by an analysis of the main sources of fiscal risk in more detail.

Table 4.5: **Budget transactions with SEs, Nu million (percent of GDP)**

	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22
Revenues from SEs (percent of total revenues)	**10,046 (33.8)**	**12,378 (33.5)**	**11,254 (32.3)**	**16,510 (45.4)**	**20,649 (57.5)**	**20,299 (52.0)**
Corporate income tax	3,973	4,980	4,372	4,679	4,567	5,234
Hydropower royalty	142	1,991	2,234	2,833	4,097	4,017
Dividends	4,037	4,060	3,405	4,606	3,039	4,081
Profit transfers - hydropower projects				3,504	7,376	4,404
Interest received from SEs	1,895	1,846	1,243	887	1,571	2,563
Expenditures on SEs (percent of total expenditures)	**2,026 (4.1)**	**4,116 (7.3)**	**3,371 (7.7)**	**3,900 (6.8)**	**2,975 (4.2)**	
Subsidies	463	2,551	2,396	2,408	2,122	2,179
o/w BPC, rural electricity tariff subsidy[68]	0	1,995	1,773	1,829	1,508	
Equity and grants				1,171		
Interest payments on SE related debt	1,563	1,565	975	328	1,305	2,277
Below the line transactions						
Net lending	-2,037	-2,112	-1,353	-729	-746	-3,678
Disbursements	42	49	198	147	1,659	259
Recoveries of principal	2,079	2,161	1,551	876	2,405	3,937
Amortization of SE related debt	2,131	2,190	1,598	938	2,548	2,070
Revenues from SEs as percent of GDP	6.6	7.5	6.5	9.4	11.5	10.6
Expenditures on SEs as percent of GDP	1.3	2.5	1.9	2.2	1.7	

Source: MoF and World Bank.

68 The Domestic Electricity Tariff Policy 2016 requested that the MoF implement an improved accounting system for the subsidy payment to BPC. The rural electricity tariff subsidy was implicit before.

The SE sector is a major source of budget revenues, greatly exceeding budget expenditures on SEs which include subsidies provided to the SEs. There are several channels through which budget resources are transferred to SEs and received from SEs (Table 4.5). Contributions to budget revenues comprise corporate income tax and dividends, hydropower royalties, profit transfers from hydropower projects, and interest payments on loans on-lent to SEs. They totaled between 32 percent and 58 percent of total revenues per annum in the last five years, equivalent to between 6.5 percent and 11.5 percent of GDP.[69] In contrast, in the same time, SEs received relatively modest amounts of subsidy from the budget, totaling between 1.3 percent and 2.5 percent of GDP per annum. The largest component of which, accounting for more than half of total subsidies to SEs, was a rural electricity tariff subsidy paid to BPC, equivalent to around one percent of GDP per annum during FY18/19-FY20/21. There were also operational subsidies for MoF SEs.[70] SE expenditures, including interest on SE related debt and fully funded by SEs, amounted to an average of 6 percent of total budget expenditures over the last five years.[71]

Table 4.6 presents a fiscal risk matrix, including SE liabilities which may become a future budget burden. The fiscal risk matrix divides the risks between those emanating from the operating statement, which are those related to budget transactions, and various forms of direct and contingent fiscal liabilities. Direct risks are certain to materialize, while contingent liabilities are contingent on uncertain future events, such as an SE defaulting on its debt liabilities. Explicit fiscal risks are the government's legal obligation to honor the liability if the SE cannot do so. For implicit risks, the government only has a moral, political, or social obligation but is likely to have to honor the liability. The aggregate nominal value of all SE-related fiscal liabilities is large, about 245 percent of GDP in FY20/21 and has increased since FY17/18. There are also compounded fiscal risks as some of the liabilities of SEs are owed to financial sector SEs.[72]

Table 4.6: Fiscal risk matrix covering real and financial sector SEs - % of GDP - FY17/18 (FY20/21)

	Operating Statement		Balance Sheet	
	Revenues	**Expenditures**	**Direct Liabilities**	**Contingent Liabilities**
Direct	• Tax payments: 2.7 (2.5) • Dividends: 2.5 (1.7) • Hydro royalty: 1.2 (2.3) • Profit transfer: 0.0 (4.1) • Interest receipts: 1.1 (0.9)[73] **Total: 7.6 (11.5)**	• Interest paid: 1.2 (0.8) • Subsidies: 1.1 (0.9) **Total: 2.3 (1.7)**		
Explicit Obligations			• External debt on-lent for hydro projects: 79.5 (86.8) • External debt on-lent to non-hydro SEs: n.a. (3.7) • Domestic debt on-lent to non-hydro SEs: n.a. (2.1) **Total: n.a. (92.6)**	• External SE debt - hydro and guaranteed by RGoB: 1.1 (3.4) • External SE debt - non-hydro and guaranteed by RGoB: 3.8 (4.1) • Domestic SE debt guaranteed by RGoB: 0.9 (2.9) • Defined benefit scheme of NPPF: 12.6 (16.2) **Total: 18.3 (26.6)**
Implicit Obligations				• SE debt to domestic banks: 5.1 (5.5) • Debts owed to NBFIs: 4.5 (6.2) • Bail out costs of distressed state-owned banks and NBFIs (total financial sector liabilities: n.a. (113.9) **Total: n.a. (125.6)**

Source: World Bank, 2020/2021 National Budget

69 The table includes one corporate income tax as it is the only tax for which the economic burden is borne by the SE and not its employees (payroll taxes) or its customers (indirect taxes).
70 In 2019/20 SEs also received grants, mainly for the National Food Security Reserve and equity injections, but these were one off expenditures.
71 There are also below the line SE budget transactions i.e.disbursements and repayments of SE loans, mostly on-lent donor loans. Their overall net budget impact is mostly neutral, e.g., the SE repays the loan.
72 Financial sector SEs hold around NU 20 billion of the domestic debts of real sector SEs. Additionally: NPPF holds claims of NU 17.4 billion on other financial sector SEs (e.g., deposits in state owned banks); and RICB holds claims on banks (e.g., NU 3.5 billion in bank deposits) but its financial statements do not specify which financial institutions these claims apply to. Given the SE dominance in the financial system, most of RICB's financial institutions claims are likely SE claims. There are also inter-company loans of SEs within DHI of NU 0.9 billion. This suggests that about NU 40-42 billion of SE liabilities (10 percent of total SE liabilities) are assets of other SEs.
73 This reflects interest receipts from SEs to reimburse the MoF for the debt servicing of the on-lent loans.

There are four distinct types of fiscal risk in relation to the SE sector in Bhutan: (i) the dependence of the budget on SE revenues, most of which are potentially volatile hydro revenues; (ii) the requirements to subsidize the quasi-fiscal activities of BPC; (iii) the risks emanating from loss making real sector SEs; and (iv) the risks posed by financial sector SEs. In addition, fiscal risks also emanate from the SE investment management system. SEs implements and plan to implement several major investments, many of which are funded by government guaranteed loans. Given that several recent projects implemented by SEs are encountering delays and cost overruns, there is a fiscal risk related to these projects. Meanwhile, little is known on the SE investment management system.

2.1 Dependence of the budget on SE revenues, most of which are volatile hydro revenues

A high share of the combined SE fiscal revenues is derived directly through profit transfers and hydropower royalties and indirectly via tax and dividend payments from DHI,[74] which account for around 90 percent of total fiscal revenues from SEs in FY20/21. Hydro revenues have been volatile, mainly because these revenues spike when new hydropower plants come into operation. A second source of volatility is that budget revenues are very vulnerable to fluctuations in the volume of power generated by the hydropower plants.[75] Over the period 2001-2021, the standard deviation of the real annual value of total hydro budget revenues, excluding the profit transfer from the newly commissioned Mangdechhu hydropower plant, was 17 percent or 1.9 percent of GDP. On average, a one percent change in annual real hydropower output (GWh) translated into 1.4 percent change in the real value of budget revenues.

Meteorological factors could exacerbate fluctuations in real power generated by the hydropower plants and hence of real budget revenues. Bhutan is assessed to be at medium risk of suffering water scarcity by the Global Facility for Disaster Reduction and Recovery, which means that there is a 20 percent chance of drought occurring in the coming 10 years. The country is also assessed as facing a high risk of river flooding. Both types of risk, which will be intensified by climate change, could potentially negatively affect the operations of hydropower plants and thus their contributions to budget revenues. Although Bhutan's budget revenue volatility is not especially high in comparison to other countries which are dependent on natural resource revenues, that does not lessen the problems posed by this volatility for fiscal management. The RGoB has established the Bhutan Economic Stabilization Fund (BESF) in 2018 and defined fiscal stabilization measures that regulate contributions to and uses of the fund in 2020. However, the fiscal rules for the stabilization fund have not been utilized to date.

2.2 Budget subsidies are required to fund the quasi-fiscal activities of BPC

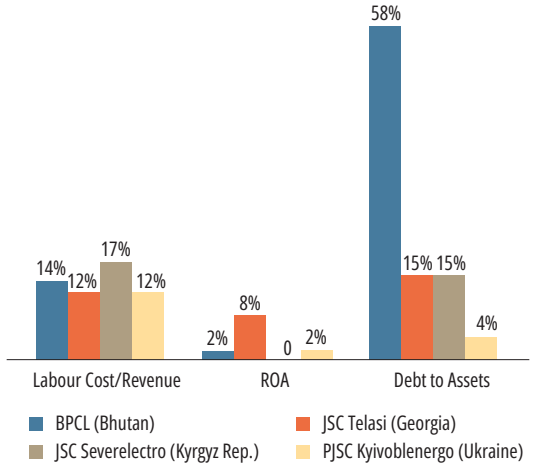
Fiscal risks related to BPC include the provision of power to rural consumers at prices which are much less than the full cost of supply. With the increase in rural electrification, a larger budget subsidy will be required to offset the losses incurred by BPC in serving this segment of the market. Second, BPC's profitability is already marginal, and therefore any further deterioration in financial performance will likely mean it will incur losses which may have to be funded out of the government budget. Also, BPC may have substantial capital investment requirements to maintain the quality of its assets and expand its coverage. If it cannot fund investments from retained earnings, it will have to borrow money for this purpose, which will entail explicit or implicit government contingent liabilities. While the probability of these fiscal risks materializing is very high, their magnitude is relatively small (rural power subsidies currently amount to around one percent of GDP) and hence they can be absorbed within the budget.

The electricity transmission and distribution company BPCL has a high debt to assets ratio and a low ROA compared to other utility companies. The BPCL, country's sole electricity transmission and distribution company, has been benchmarked with some similar SEs that exist in other countries (figure 4.9). The major differentiating factor is BPCL's debt to assets ratio at 58 percent compared to 15 percent or less in other comparative countries (Figure 4.9). This might be explained by the fact that generous on-lending by RGoB to BPCL for building infrastructure. The labor cost as a percentage of revenue for BPCL is 14 percent which is slightly higher than the companies in Georgia and Ukraine. In terms of ROA the BPCL is generating a mere 2 percent, while the utility company in Georgia is generating 8 percent ROA.

74 DGPC (which owns most of the hydropower plants) contributed 65 percent and 71 percent of the dividend income of DHI in 2019 and 2020 respectively (National Budget, FY 2021-22, p91).

75 Two sets of residuals determine budget revenue; i) exported surplus power, after domestic demand is met, and ii) financial surplus after total generation costs, including financing costs. Both domestic power demand and total costs of generation are relatively stable and independent of total power generated. Consequently, fluctuations in total power generated have an amplified impact, firstly on the surplus available for export and, secondly on the financial surplus, after costs are deducted from export revenues, which is available to be paid as budget revenue.

Figure 4.9: Electricity distribution business cross-country comparison



Source: Kyrgyz Republic iSEF (World Bank), BPCL Annual reports and World Bank Staff Calculations

Table 4.7: Largest loss making SEs by total liabilities (Nu millions)

SE	Average annual loss 2018-20, Nu million	Total Liabilities 2020, Nu Million
Dungsam Cement	586	7,119
Druk air	104	6,792
Construction and Development Corp	26	1,497
National Housing Development Corporation	5	1,193
Pendem Cement Authority	6	747

Source: WB staff calculations

2.3 Losses being incurred by several of the real sector SEs.

As highlighted in section 2.1, a few real sector SEs have substantial liabilities (around 11 percent of GDP in total at end-2020). Unless the financial performance of these SEs can be improved, it is likely that they will require finance either from the budget or from DHI to honor their liabilities. If they are bailed out by DHI, its capacity to make dividend payments will be reduced (in effect these SEs will be cross subsidized by profitable SEs within the DHI structure).

2.4 Financial sector SEs, which dominate the financial sector in Bhutan

The financial sector is dominated by SEs, which at end-2020 accounted for 60 percent of the assets of the banking system and 51 percent of the assets of the non-banking financial institutions (NBFIs), including the NPPF.43 Also, existing bank-level data suggests that the state-owned Bank of Bhutan Limited (BOBL) tends to a have lower cost of fund than other banks due to its large base with the government and SEs, which maintain their main accounts with the bank. The financial performance of both state-owned banks and NBFIs has been poor over the last few years (ie., BDBL) and it is likely that the economic disruptions caused by the COVID-19 pandemic will have furthered weakened their balance sheets (see section 3). The specific fiscal risk in the short to medium term is that some of the financial sector SEs may need capital injections to restore capital adequacy because of loan losses. These capital injections will have to be funded directly, or indirectly through DHI, from the budget. In the long term, the liabilities of the defined benefit scheme of the NPPF may also require to be funded from fiscal resources. A significant share of SE borrowing is from the financial sector SEs and thus an additional source of fiscal risk.

In the long term, the liabilities of the defined benefit scheme of the NPPF may also require to be funded from fiscal resources. The NPPF operates both defined benefit pension schemes and a defined contribution scheme, but nearly two thirds of its liabilities pertain to the former. It operates under a set of Government rules and regulations which were amended in 2010 and which state that the Government will guarantee the pension benefits prescribed in the rules and regulations. As such it poses an explicit contingent fiscal liability. The 2020/21 Annual Report of the NPPF states that the fund faces inherent problems of sustainability because of unfavorable demographic trends which would eventually lead to the exhaustion of its funds (NPPF, 2021, p16). An actuarial study of the defined benefit scheme is required to determine the magnitude of future deficits in the NPPF and the probability that they will occur.

Section 3: SE Ownership, Legal and Institutional Framework

Stable, financially healthy, and well-performing SE hinges on good corporate governance. While Bhutan has implemented multiple reforms to strengthen its legal and institutional framework, performance monitoring, and transparency and disclosure, the SE sector continues to face multiple challenges in terms of corporate governance. Such governance challenges can include but are not limited to multiple principles, protection against competition, undue political interference, competing goals and objectives, limited transparency, and accountability. Consequently, given their critical role in providing infrastructure and public services, it is essential that SEs follow good corporate governance practices. Following the iSEF framework, the remaining part of section D is organized as follows: (i) legal and institutional framework; (ii) ownership and oversight function; (iii) performance monitoring; (iv) SE Boards; and (v) transparency and disclosure.

3.1 Legal and Institutional Framework

Overall, Bhutan has a comprehensive legal framework governing SE. The Bhutan Companies Act (2016) governing corporatization and corporate governance of all companies in Bhutan treats public and private companies equally. Additional rules governing SEs are set forth in the Bhutan Public Finance Act (PFA) (2007, amended in 2012). A Royal Charter[76] established DHI and its governance framework.

The MoF issued corporate governance (CG) guidelines in 2019 applicable to all SEs under MoF. The guidelines, mandated by the PFA have been developed in close consultations with stakeholders i.e., RMA, Companies Registrar, DHI, SEs and international partners. They replaced the guidelines for SE Boards of Directors issued by MoF in 2004 and define a CG framework aligned with the G20/Organization for Economic Cooperation and Development (OECD) CG Principles[77]. Hence, the MoF CG guidelines defines the ownership and oversight function, role of the government, MoF and Portfolio Ministries and reporting requirements of SEs. Furthermore, procedures for Board of Directors, Chairperson, Chief executive officer (CEO) and Company Secretary selection and nomination, role and responsibilities, removal and remuneration, performance management, and monitoring and evaluation are defined. Finally, a Directors Code of Conduct, and guidelines for the Board Audit Committee are provided.

Specific CG guidelines issued by DHI apply to DHI and DHI portfolio companies. The DHI CG Code issued in 2010 and revised in 2013 and are aligned with OECD Corporate Governance Principles. They apply to DHI and all corporations and subsidiaries with DHI majority ownership. For companies that are not majority owned by DHI, DHI will work with them to ensure that best CG practices are implemented. The Code defines the legal and regulatory framework and rights of shareholders. It also defines rules for Annual and Extraordinary General Meetings, voting, election of board members. Roles and duties of the Board and its committees, Chairman, CEO, Company Secretary are also defined, as well as a code of conduct and remuneration guidelines of the Directors. The DHI CG Code provides rules for risk oversight and internal control systems, internal and external audit and transparency and disclosure. A Board charter and an Audit Committee charter are also provided in the CG Code.

Both the Royal Monetary Authority (RMA) and the Royal Stock Exchange of Bhutan (RSEB) have issued CG codes. In conformity with the Financial Services Act of Bhutan 2011, the RMA has issued CG Rules and Regulations. These rules applies to all banks and insurance companies and set forth responsibilities and accountability of Board of Directors; rules regarding composition of Board, its functioning and performance evaluation, including Board committees – particularly the Risk and Audit Committees; appointment , removal and tenure of Directors, chairperson and Company Secretary and CEO; the role of senior management and CEO; Remuneration of Board, Senior Management and Employees; Disclosure and Transparency requirements; Whistle-Blowing Policies; and the Risk Management Framework. Financial institutions, including owned by the State, must also abide by RMA's prudential regulation. The RSEB has also issued a CG code applicable to all listed companies.

76 Royal Charter of Druk Holding and Investments, 2007, amended in 2008.
77 (i) Ensuring the basis of an effective corporate governance framework; (ii) rights and equitable treatment of shareholders and key ownership functions; (iii) Institutional investors, stock markets, and other intermediaries (iv) role of stakeholders in corporate governance; (v) Disclosure and transparency; and (vi) board responsibilities.

Finally, as per the 2016 Companies Act, a draft Corporate Governance and Corporate Social Responsibility Code (CGCSRC) has been prepared by the Corporate Regulatory Authority (CRA) and will be a major step forward to improve CG in SEs when finalized[78]. The draft code, aligned with OECD's six principles of corporate governance, will be applied to all companies other than RMA regulated institutions. When finalized and issued it will be a major improvement of the regulatory environment and the CG of companies, including SEs in Bhutan. The draft code include more detailed requirements on transparency and reporting than existing CGs, enhance the role of independent directors, establishes a maximum tenure (six years) and number of companies in which the independent director can serve on (three), establishes training requirements of directors and requirement regarding board committees as SEs will have to establish audit, nomination and remuneration committees. Furthermore, the CRA will have a monitoring and compliance function to ensure code implementation. It is expected that the CGCSRC will be issued by end 2023.

While MoF has yet to issue an ownership policy applicable to all SEs, DHI has issued one specific for its companies. MoF has yet to issue an ownership policy that provides an in-depth discussion of the overall rationales for state ownership, the state's role in the governance of SEs, how the state will implement its ownership policy, and the respective roles and responsibilities of those government offices involved in its implementation. DHI issued an ownership policy applicable for entities under its management in 2010 and has updated it regularly since. The last update was made in 2019.

There is no dividend policy, and the legal framework gives MoF discretion to determine the dividend level. The PFA and Royal Charter establishing DHI set the legal foundation for determining dividend. The current practice in Bhutan is for MoF and DHI to negotiate the level of dividend. Also, DHI negotiates dividend levels with its SEs and MoF negotiates dividend with SEs under its direct supervision. The observed practice is that SEs don't pay dividends unless there is a profit. There is currently no dividend policy which could provide more guidance on dividend distribution. A dividend policy would allow to establish clear objectives for SEs and could contribute to enhance efficiency and performance of SEs. Furthermore, this would also contribute to further optimize and streamline dividend distribution across SEs in a transparent and accountable manner.

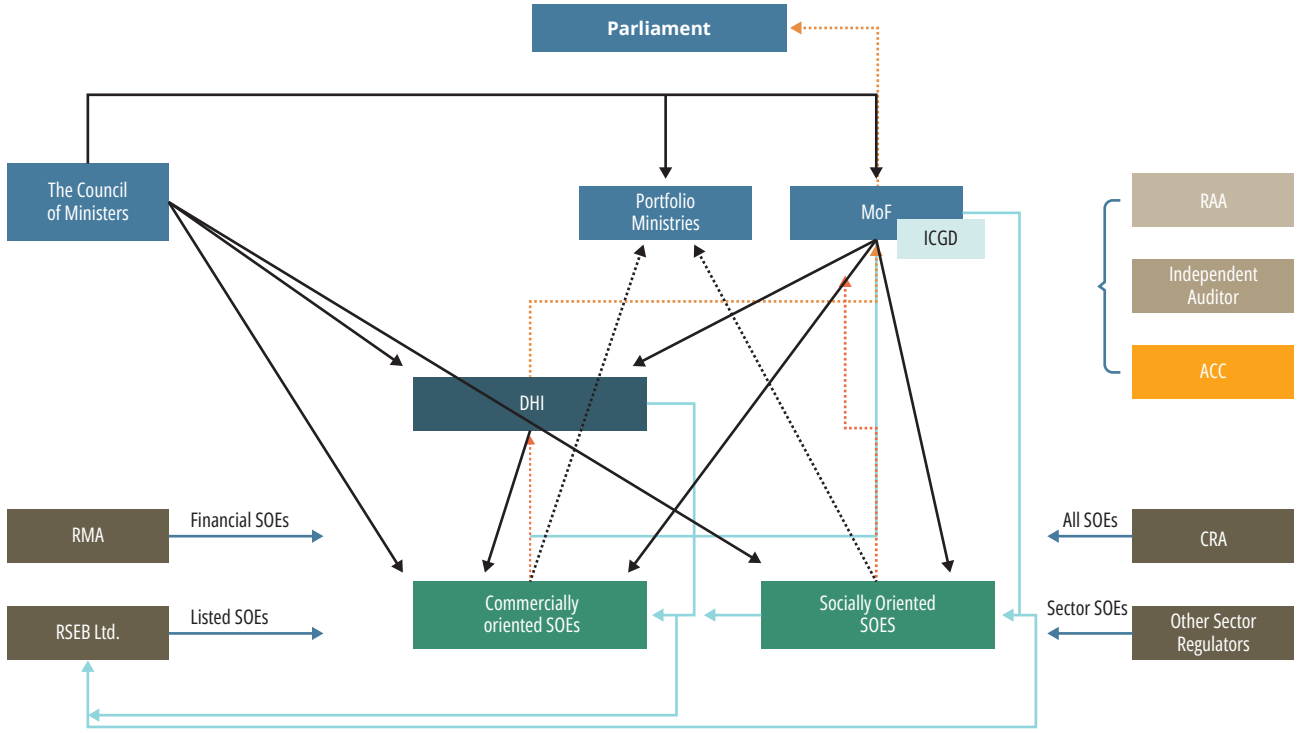
3.2 Ownership and Oversight Function

Bhutan's SE ownership model is a centralized one with exceptions and elements of a dual model (figure 10). MoF, through the Investment and Corporate Governance Division (ICGD) assumes oversight of SEs not held by DHI, of DHI and is responsible for oversight and reporting on SE performance management. Furthermore, ICGD formulates recommendations on SE capital structure, divestment and investment, privatization, capital expenditures and foreign equity participation in SEs. The division also issues corporate assessment guidelines with line ministries, including the corporate governance guidelines in 2019. The commercial arm of the RGoB, DHI, is a holding company centralizing ownership of commercially oriented SEs. According to its Royal charter, DHI's mandate is "to hold and manage the existing and future investments of the RGoB for the long-term benefit of its shareholders, the people of Bhutan, represented by the MoF". DHI is well structured, organized and structured with adequate staffing.

Multiple RGoB entities form the SE institutional framework. The CRA, yet to be fully delinked from the Ministry of Economic Affairs (MoEA), is responsible for the incorporation or registration of corporate entities. The Royal Audit Authority (RAA) is the ex-officio auditor of all SEs, and it approves private auditors that conduct SE audits. The Anti-Corruption Commission is also covering SE in its work. Finally, SEs are subject to sector specific regulators, i.e. Bhutan Electricity Authority.

78 https://www.cra.gov.bt/wp-content/uploads/2022/05/New-Code-CG-CSR_20210708_V2.0.pdf

Figure 4.10: **Ownership and oversight function of SEs in Bhutan**



Source: World Bank staff compilation.

The current ownership model is complex which can undermine the oversight function. It has multiple stakeholder relationships that overlap in a complex manner. MoF hold shares in different types of SEs, including commercially oriented companies where DHI holds shares. This is for instance the case with the SE Penden Cement in which DHI holds 40 percent of the shares and MoF, through NPPF, holds 6 percent of the shares. Also, state-owned financial institutions are shareholders of the Royal Securities Exchange Bhutan (RSEB), which has an important regulatory role of listed companies. Furthermore, the PFA of Bhutan also provides portfolio ministries the responsibly for monitoring and reporting the performance of assigned SEs. The MoF has a responsibility to prepare an annual report on SE performance but has limited access to SE information beyond SEs it holds shares in. The complex relationships and responsibilities blur reporting lines, limit transparency, dilute accountability, and reduce the efficiency of SE oversight.

3.3 Performance Monitoring

The MOF Annual Performance Compact (APC) system outcome in 2020 revealed potential for improving the methodology as APCs do not seem to be consistently linked to SE performance. APCs covering both financial and non-financial indicators and impacting pay of SE management and staff are signed annually (Table 4.8). In 2020, three SEs had an APC scored above 75 although they did not meet revenue targets and the NPPF. Six SEs scored APCs above 75 although they had negative profitability and return on asset, two of which also did not meet the revenue target. Although performance across SEs varied substantially, all SEs received a 15 percent performance based variable incentive due to COVID-19.

A performance-based incentive system linking achievement of targets with Chief Executive compensation and contract renewal, as well as staff compensation, has been established by DHI. Chief Executive Officers (CEO) of DHI companies are subject to an annual performance evaluation by the DHI Board. An online feedback survey on leadership performance is undertaken and weighs 20 percent of the CEO's performance rating. Achievement of the compact target constitutes the remaining 80 percent of the CEO's performance rating. The performance based variable payout depends on level of target

Table 4.8: APC score and key performance indicators

SE	Profitability (Nu million)	Return on asset (percent)	APC Score 1/	Revenue target met (Y/N)
KUENSEL Corporation Limited	-11	-3.8	n.a.	n.a.
Druk Holding and Investments Limited	3,656	1.6	97	Y
National Pension and Provident Fund Limited	2,102	5.1	97	N
Bhutan Development Bank Limited	-140	-0.5	93	Y
Green Bhutan Corporation Limited	-1	-1.8	92	Y
Farm Machinery Corporation Limited	-13	-2.9	89	N
Bhutan Broadcasting Service Corporation Limited	-16	-3	88	Y
Bhutan Duty Free Limited	40	20.8	86	Y
Royal Bhutan Helicopter Services Limited	-63	n.a.	78	N
Food Corporation of Bhutan Limited	-112	-7.3	75	Y
Bhutan Livestock Development Corporation Limited	6	0.9	69	Y
National CSI Development Bank Limited	-27	-2.5	63	Y
National Housing Development Corporation Limited	-27	-0.6	63	N
Bhutan Lottery Limited	13	10	53	N
Bhutan Postal Corporation Limited	-24	-5.2	47	N

1/ For all companies but DHI financial and non-financial targets are weighted 50. For DHI, financial targets are weighted 30 and non-financial targets are weighted 70
Source: MoF 2020 SE annual reports.

achievement. Contract renewal of CEOs is also subject to a satisfactory performance rating averaging 85 percent during the tenure. Staff of DHI owned companies also benefits from a performance based variable payout linked to achievement of compact targets (box 4.2). Information on implementation of the performance-based incentive system and CEO's performance is limited. Compacts are not published, and results of compact implementation is currently not subject to discussion in DHI annual reports. It is also not clear if the performance management system is reviewed by the SE's auditors. Additionally, there is no information about any impact evaluation of the performance and impact of SE performance of the current system.

Box 4.2: Link between Compact achievement and PBVP

Compact achievement	Performance based variable payout (PBVP)	
	CEO	Employees
≥ 95 percent	25 percent of annual pay	15 percent of annual basic pay
75-95 percent	Prorated payout of 1.5 percentage point for every point of achievement	Prorated payout of 0.75 percentage point for every point of achievement
≤ 75 percent	No performance-based payout	No performance-based payout

DHI also conducts Corporate Governance Assessments (CGA) of SEs under its supervision. Launched in 2014, these assessments were conducted in 2017, 2018, 2020 and 2021. In these years, the assessments were carried out for four companies. The 2021 assessments covered 13 companies. The CGA covers some 60 indicators across 6 dimensions: i) legal and regulatory framework; ii) shareholder rights; iii) responsibilities of the Board; v) transparency and disclosure; and vi) stakeholder relations. Detailed scorecards are developed for each company and are used to identify critical actions to improve corporate governance. In 2020, six companies scored above 90 percent, five companies scored between 80 and 90 percent and two companies scored between 60 and 70 percent. Key recommendations from the 2021 CGA include: i) need for a comprehensive Board Directorship Program; ii) strengthen company secretaries' role and capacity; iii) ensure formation of Board sub-committees with adequate terms of references or charter; and iv) strengthen transparency and disclosure through timely publication of annual reports, annual meetings' minutes and quarterly activity reports.

3.4 SE Boards

The DHI Royal Charter, the Companies Act, the DHI CG Code, and the DHI ownership policy determines the Governance of the DHI Board. The DHI Board is composed of seven or nine members as determined by the DHI Board and the Blue-Ribbon Panel. The Royal Charter stipulates that there shall be a minimum of two directors from the civil service including a representative of the Ministry of Finance. Board members are appointed for a term of three years and may be reappointed. The Minister of Finance appoints the MoF representative to serve as a director on the DHI Board and other Board members are appointed by the Blue-Ribbon Panel according to criteria determined by DHI. DHI has also developed a CG Code which include a board charter, an audit charter and a code of conduct as well as an ownership policy, in line with the Bhutan Companies Act and consistent with OECD Corporate Governance Principles.

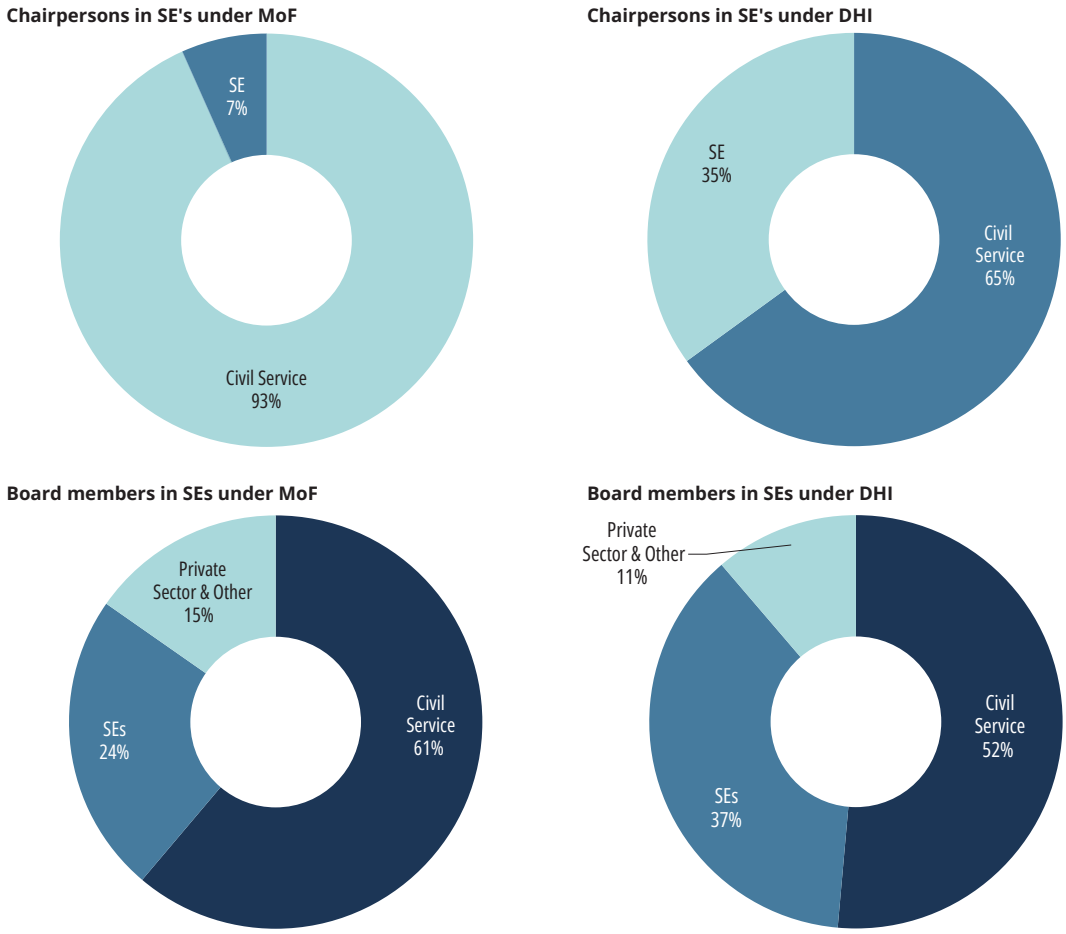
SE Boards and corporate governance are critical for SE performance, but there is limited data on them. SE Boards make major investments of SEs, including on investments and divestment. Corporate governance codes provide rather detailed reporting requirements and data provided in Annual Reports and aggregated reports by the MoF and DHI include some information on Boards and corporate governance.

In 2020, the all-male DHI Board was composed of seven members of which four were independent members with limited private sector experience. Five of the Board members were appointed in 2018. The Secretary of MoF represented the MoF and was appointed in 2016. The CEO of DHI, also a member of the DHI Board, was appointed in 2015. Included in the Board are Secretaries from MoF, the National Land Commission and the Gross National Happiness Commission. While the DHI CG Code requires the Board to have a balance of diverse skills, competences, knowledge and experience, the Board members of the DHI 2020 Board have experience from the public sector, think tanks and international non-governmental organizations. All independent Board members but one was from the public sector. The current Chairperson was formerly auditor general in Bhutan. Three directors have also responsibilities as Chairperson in other SEs and four directors are also member of the Board of other SEs.

The Majority of SE Board members are male with a background in Civil Service and other SEs. The DHI Board, MoF and Cabinet have an important role in the appointment of Board Directors and CEOs and corporate governance codes provide some guidance on recruitments.[79] The chairpersons of SEs owned by DHI are selected by the DHI Board. For SEs under MoF, Board members and CEO are identified by MoF and relevant portfolio ministries and approved by Cabinet. While SE Board members are required by regulation to have a diverse background, most Board members are senior Civil Servants and CEOs in other SEs. There are no requirements on gender and women represented on average 10 percent and 13 percent in MoF and DHI Boards respectively. Out of 39 SEs, one had a woman as Chairperson. Training of Board members and the role of the Company Secretary is limited. Given the role of SEs and the importance of the Board, increasing the share of Board members with private sector background is likely to be beneficial for SE performance. While corporate governance codes provide some requirements of Board members and CEOs, only the MoF corporate governance code provides minimum education and experience requirements and only for the CEO.

79 Boards are regulated by provisions in the Companies Act, the PFM act, the Financial Services Act (2011), corporate governance codes and other regulations. SE Boards have similar mandates across the different regulation and corporate governance codes.

Figure 4.11: **Chairpersons and Board members' backgrounds**



Source: World Bank staff calculation based on SEs annual reports.

3.5 Transparency and Disclosure

Bhutan has relatively strong transparency and disclosure requirements. Information and disclosure of SEs is a cornerstone of accountability and contributes consequently to SE efficiency and performance. With information and disclosure, the State can perform its ownership function and Parliament can ensure oversight. It also allows media to report on SEs and the general public to have information on SE performance. Furthermore, as noted by the OECD,[80] information and disclosure is key to maintain a level playing field with other market participants. It ensures that other market actors and even regulatory authorities can objectively assess SEs' business and governance practices. Table 4.9 summarizes the transparency and disclosure requirements for Bhutan. While the framework is quite comprehensive, it would benefit from: (i) clarifying content for consolidated reporting of SE performance; (ii) clarify and shorten timelines for preparing the consolidated SE performance report; (iii) make it mandatory to publish audited financial statements, annual reports and consolidated SE performance report; and (iv) introduce climate change related reporting by SE.

80 https://www.oecd.org/corporate/Transparency-Disclosure-Practices-SEs.pdf

Table 4.9: Bhutan SE transparency, accounting, and audit requirements

Accounting Standards	External Audit	Internal Audit	Reporting by SEs	Climate Change reporting by SEs	State level reporting
Bhutan Accounting Standards adapted from International Financial Report Standards	RAA ex officio auditor has panel of audit firms that undertake SE audits. Auditor selected by Annual General Meeting (AGM).	Internal audit mandated by corporate governance codes.	Financial[81] and non-financial information[82] to be presented to AGM and then filed to CRA	No climate change related reporting by SEs is mandated or practiced.	PFA and DHI Royal Charter stipulates that MOF presents SE report to Parliament.

Source : PFA, CG codes, Companies Code

The share of SEs with published annual reports and audited financial statements and timeliness of publishing is limited and there is scope to improve its quality. As of September 2022, the total share of SEs with audited and published financial statements for 2020 was 62 percent (59 percent and 64 percent for SEs under DHI and MoF, respectively). The total share of SEs with published audited financial statements and annual reports for 2021 was even lower, at 39 percent and 26 percent respectively. SEs under the MoF performed worse than SEs under DHI (Table 4.10). The 2021 DHI audited financial statements didn't mention that DHI had taken a significant loan for RMA to invest in crypto mining assets.

The MoF published a consolidated annual SE report for 2018, 2020 and 2021. The ICGD of the MoF prepared and published a consolidated annual report on financial and non-financial SEs including DHI in 2018. A second report was published in 2020, covering SEs under the MoF and consolidated results from DHI. While the quality of the 2020 consolidated annual SE report improved from the 2018 report, it did not include SEs under DHI and had limited information on corporate governance and SE investment management. The 2021 report mentions the loan from RMA, but otherwise the report provides limited information on the investment. The 2021 report states that the RMA loan is treated as "off-budget" and is not reflected in the consolidated financial reporting. Furthermore, consolidated annual SE reports have been published 15-16 months after the end of the fiscal year.

Table 4.10: SE reporting (as of September 2022)

Reporting line	Annual Report 2020	Audited Financial Statements 2020	Annual Report 2021	Audited Financial Statements 2021
SE's under MoF and other entities	53%	59%	18%	24%
SE's under DHI	55%	64%	33%	52%
All SE's	54%	62%	26%	39%

Source: Company webpages, Royal Stock Exchange Bhutan and World Bank staff calculations.

There is limited information on SE procurement. SE follow their own procurement rules and are large actors in procurement. The Bhutan Procurement Rules and Regulations (2019) stipulates in its Art. 1.1.2.4 that SEs may adopt separate rules and regulations for the management of their procurement. Information on procurement of SEs is limited and is not reported on in a consolidated manner in a systematic manner. Also, SE annual reports provide very limited information on procurement.

81 Audited Financial Statements, audit report and management report
82 Company profile, directors' report, corporate governance report, board composition, remuneration of board and CEO, CSR and information about auditors.

Section 4: Policy Recommendations

Table 4.11 outlines policy recommendations to mitigate fiscal risks and improve corporate governance in the SE sector. While some of these policy recommendations can be implemented in the short term, more challenging ones would require more time to implement. Recommendations that can be implemented in the short term include strengthening the fiscal risk assessment in the annual budget documents, formalizing a mechanism for calculating the costs of the policy-based objectives implemented by BPC (such as providing subsidized power to rural consumers) and funding these fully from the budget and undertaking the actuarial evaluation of NPPF's defined benefit pension scheme. More difficult reforms pertain to the loss-making real sector SEs and the financial sector SEs. In the medium to long term, the government could further improve the performance of these SEs (and reduce fiscal risks) through better SE oversight, reporting and performance management, professionalization and diversification of SE Boards, and improved SE investment management. The RGoB could rapidly undertake an assessment of the investment management using international standards and outline measures to improve the investment management framework.

Table 4.11: **Policy recommendations for the SE sector**

Challenges	Policy measure to mitigate challenge	Timeline
Fiscal Risk		
All types of fiscal risk	Include a comprehensive assessment of all risks in the annual budget report, including an estimate of all SE related liabilities.	Short term
All types of fiscal risk	Undertake an assessment of SE investment management using international standards and strengthen the SE investment management framework.[83]	Short term
Hydro revenues volatility	Operationalize the BESF governance framework and fiscal rules.	Short term
Quasi fiscal activities of BPC	Establish and publish clear criteria for calculating the magnitude of policy-based objectives of BPC and compensate these explicitly from the budget. Ensure that BPC can finance all its other operations from its revenue.	Short term
Losses of real sector SEs	Identify SEs with non-commercial objectives to implement, establish and publish clear criteria for compensation of such activities and explicitly compensate them from the budget. Undertake a sustainability analysis and impact analysis of such compensation.	Short term
Long term NPPF liabilities	Undertake an actuarial evaluation of the defined benefit scheme with recommendations to strengthen its financial sustainability.	Short term
Losses of real sector SEs	Monitor more closely financial and non-financial performance of loss-making SEs, set targets, and establish an action plan to restore loss-making SEs to profitability. Establish a framework to determine what to do with commercially oriented SEs that cannot be made profitable.	Medium term

83 https://openknowledge.worldbank.org/bitstream/handle/10986/36002/Assessing-Public-Investment-Management-Functions-and-Institutional-Arrangements-for-State-Owned-Enterprises-A-Diagnostic-Framework.pdf?sequence=1&isAllowed=y

Challenges	Policy measure to mitigate challenge	Timeline
Potential financial sector SEs financial distress	Encourage gradual privatization for weaker state-owned banks and NBFIs, with the private investors taking responsibility for managing these institutions on purely commercial lines. Given the shocks from COVID-19 and impact of balance sheets of state-owned financial institutions, the government might have to recapitalize these institutions and resolve NPLs before they become attractive for private investors. Financial institutions which are mandated to implement social objectives, and which therefore cannot be run on purely commercial lines should not take deposits, but instead be funded from equity, loans, or transfers from the budget and concessional loans from international financial institutions.	Medium term
Corporate Governance		
Oversight	Strengthen the institutional and regulatory framework by: (i) introducing a more centralized ownership model with clear reporting lines and responsibilities for enhanced accountability and oversight; (ii) strengthening MoF oversight role of all SEs and its capacity for SE oversight; (ii) issue the corporate governance code as required by the Companies Act and harmonize existing codes; (iii) strengthen the CRA; (iv) issue SE Ownership Policy; and (v) issue SE Dividend Policy.	Short term
Performance management	(i) Review and assess DHI and MoF's compact system and performance-based compensation; (ii) ensure consistency between SE results and compact performance and across DHI and MoF performance management systems; (iii) revise compact targets annually to include productivity gains.	Short term
Transparency and disclosure	(i) MoF to publish annually an expanded SE report including SE financial and non-financial performance, SE investment management, fiscal risk and corporate governance analysis and covering all SEs, including DHI ; (ii) expand SE database to include more information on corporate governance including procurement, SE human resources and non-financial performance; (iii) establish a monitoring and evaluation system of SE investments; (iv) establish annual report standards and improve their quality and timeliness of publication; (v) publish performance results of Board, CEO and performance compact of all SEs; (vi) climate change related reporting by SEs and in consolidated report; (vii) SE annual report to report on procurement activities; (viii) enhance coverage and quality of SE financial reporting; and (ix) strenghten quality and timelines of SE Audit reports.	Short term
Board professionalization and diversity	(i) Scale-up training and establish clear appointment criteria of Board members and CEOs consistent across SEs; (ii) increase the share of private sector representatives and women in Boards; iii) professionalize the role of the company secretary and review their compensation.	Medium term

Appendix

Appendix 1: Does Bhutan react to increasing non-hydro government debt?

A fiscal reaction function (FRF) shows the government's response to a rise in debt levels. A FRF for Bhutan following Bohn (1995, 1998, and 2008) is estimated, where it quantifies how much a government changes its primary balance in response to changes in the public debt. According to Bohn (1995), a government acts sustainably if it increases its primary balance (by raising revenues or reducing primary expenditures) whenever public debt rises. Bohn's criterion provides a rough guide as to whether addressing public debt dynamics is a priority for the respective government. Due to the limited risks to hydro debt discussed above, the analysis focuses here on the 'non-hydro' debt stock. In line with the literature on FRFs, a set of control variables is included: a measure of the output gap, the first and second lags of the primary balance, the expenditure gap, and the consumer price inflation. For more details on the methodology and the data used, see the technical appendix.

The linear regression model indicates that Bhutan's reaction to rising debt is negligible. Table A1.1displays the estimation results. The point estimates of the FRF coefficients are given in the column "posterior mean", showing the "most likely" parameter outcome of the respective parameter distribution. The coefficient of highest interest is the one related to lagged public debt. As can be seen, the parameter estimate is close to but below zero, implying that Bohn's criterion is not fulfilled and thus whether Bhutan acts in a sustainable way to counter increasing levels of non-hydro public debt cannot be answered positively. The results should be interpreted with caution given the small sample size.[84] The negative coefficient on the output gap implies that fiscal policy in Bhutan has been procyclical. The positive coefficients on the first and second primary balance lag imply some sluggishness in the conduct of fiscal policy – a common finding in the literature.[85]

Table A1.1: Estimation of the Fiscal Reaction Function

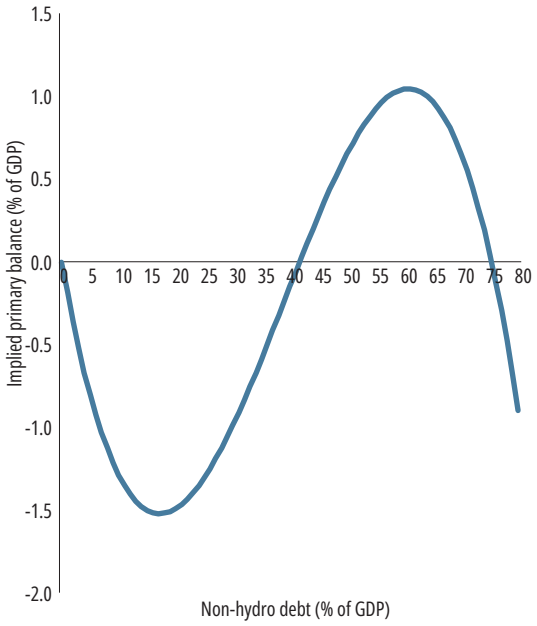
	Linear regression			Non-linear regression		
Variable	Posterior mean	10th and 90th percentiles of posterior distribution		Posterior mean	10th and 90th percentiles of posterior distribution	
Output gap	-0.16	-0.43	0.09	-0.18	-0.44	0.06
Primary balance, 1st lag	0.09	-0.13	0.31	0.11	-0.10	0.32
Primary balance, 2nd lag	0.37	0.18	0.56	0.37	0.18	0.55
Public debt, lag	-0.03	-0.11	0.06	-0.19	-0.50	0.11
Squared public debt, lag	NA	NA		0.01	-0.01	0.02
Cubic public debt, lag	NA	NA		-6.2e-05	-0.001	0.001
Expenditure gap	-0.21	-0.28	-0.14	-0.20	-0.26	-0.13
Consumer price inflation	0.22	-0.08	0.51	0.25	-0.04	0.54
Constant	-0.58	-1.74	0.57	-0.35	-1.52	0.82

84 Note that the amount of observations in the sample is fairly small (32 observations), posing problems to classical estimation methods in terms of efficiency. To mitigate these efficiency problems, Bayesian estimation techniques are applied, where the data information is combined with prior information on the FRF's coefficients. This prior information stems from other empirical studies on FRFs in South / South East Asia. However, even when employing prior information in order to mitigate problems encountered using classical estimation techniques, the posterior density intervals are fairly wide, as indicated by the 10th and 90th percentiles of the posterior distribution (table 1).

85 See Everaert and Jansen (2018) for more details.

A non-linear FRF model indicates that Bhutan shows some reaction when the non-hydro debt approaches its threshold set in its Public Debt Policy. As suggested among others by Ghosh et al. (2013), the degree of fiscal prudence in terms of stabilizing the debt ratio will likely differ for varying degrees of fiscal indebtedness. Whether the fiscal effort is contingent on the debt level, that is, whether the fiscal fatigue characteristic is given for Bhutan, cannot be assessed with the simple linear FRF. Thus, we follow Ghosh et al. (2013) in extending the previous equation to include for the squared debt term and the negative coefficient for the cubic term. The positive coefficient for squared terms and negative coefficient for the cubic terms provide some evidence for the fiscal fatigue characteristic.[86] This finding is illustrated in figure A1.1, where the implied primary balance is displayed as a function of public debt: At low levels of public debt, the fiscal effort is negligible, with the primary balance reaction to increasing public debt even being negative. However, the fiscal effort rises with increasing debt. Notably, once the 35 percent threshold is passed, the fiscal reaction to public debt finally becomes positive. This provides some evidence that the government commits to the 35 percent limit.

Figure A1.1: Fiscal fatigue characteristic for Bhutan



A technical note on the estimation of Fiscal Reaction Function

Bayesian estimation

The following equation is estimated

$$y = X\_hat*beta + eps,$$

where the T x 1 vector y is the dependent variable and X_hat is a T x (k+1) matrix of regressors, including observations on k explanatory variables and a vector of ones for the intercept.[87] eps is a T x 1 error term vector that is described by eps_t = rho*eps_{t-1} + u_t, u_t ~ N(0,sigma2_u), t = 1,2,…,T. This allows first-order serial correlation in the error term.

The estimates for the unknown coefficients beta, sigma2_u and rho are obtained. The joint and marginal distributions of these parameters can be approximated by repeatedly sampling from easier to handle conditional posterior distributions. The estimation algorithm consists of the following steps:

1. Jointly sample beta, sigma2_u, given rho.
2. Given beta and sigma2_u, sample rho.

Repeating these steps 2*N times, and discarding the first N parameter draws leads to adequate approximations of the distributions of interest, if N is a sufficiently high number. For more details, see Koop (2003) and Blake and Mumtaz (2017). Data sources are presented in table 2.

86 Fiscal fatigue is the idea that governments do not tend to react strongly to increasing government debt at low levels of debt, while the primary balance increase is more pronounced for elevated debt levels. As the debt stock increases further, this reaction will finally weaken, since governments are not able to (or unwilling) to tame the growth in public debt any longer (see Ghosh et al., 2013).

87 Note that the amount of observations in the sample is fairly small (32 observations), posing problems to classical estimation methods in terms of efficiency. To mitigate these efficiency problems, Bayesian estimation techniques are applied, where the data information is combined with prior information on the FRF's coefficients. This prior information stems from other empirical studies on FRFs in South / South East Asia. However, even when employing prior information in order to mitigate problems encountered using classical estimation techniques, the posterior density intervals are fairly wide, as indicated by the 10th and 90th percentiles of the posterior distribution (table 1). Details on the Bayesian estimation strategy can be found in the technical appendix.
We use the notation X_hat (instead of X) to indicate that the set of regressors contains fitted values from a first-stage regression of the potentially endogenous output gap, which, in a first step, is regressed on the exogenous regressors in X_hat and a set of exogenous instruments, namely the first and second lag of the output gap, as commonly used in the literature (see e. g. Berger et al., 2021). We use the notation X_hat (instead of X) to indicate that the set of regressors contains fitted values from a first-stage regression of the potentially endogenous output gap, which, in a first step, is regressed on the exogenous regressors in X_hat and a set of exogenous instruments, namely the first and second lag of the output gap, as commonly used in the literature (see e. g. Berger et al., 2021).

Prior specification

In order to be able to sample from conditional posterior distributions, prior distributions are specified, which are combined with the information in the data by means of likelihood functions. *Conjugate* priors are specified, such that the combination of prior and data information yields a posterior distribution of the same family as the prior (see Blake and Mumtaz (2017), chapter 1).

Thus, we assume that beta and sigma2_u (jointly) follows a Normal-Inverted Gamma distribution, a priori. For rho, we assume a Normal prior. Table A.2 summarizes the prior information for the two specifications (i. e. for the linear and non-linear fiscal reaction functions). Note that we use the same priors for the parameters that enter both specifications. The priors of the coefficients that only enter the non-linear fiscal reaction function are displayed in brackets.

TableA1.2: Prior distributions for the linear and non-linear fiscal reaction functions

Coefficient	Prior mean	10th and 90th percentiles of prior distribution	
Output gap	-0.39667	-0.56917	-0.22486
Primary balance, 1st lag	0.16569	-0.0073392	0.33786
Primary balance, 2nd lag	-0.0006334	-0.54627	0.54423
Public debt, lag	0.060123	-0.11314	0.23249
Squared public debt, lag	(0.048423)	(-0.12412)	(0.22032)
Cubic public debt, lag	(-0.0020256)	(-0.54756)	(0.54357)
Expenditure gap	-0.43783	-0.6102	-0.26563
Consumer price inflation	-0.0019286	-0.54804	0.54201
Constant	-0.0019226	-0.54884	0.54583
Lagged error term	-0.072028	-0.47699	0.33327
Residual variance	1.4978	0.56305	2.7171

Note: For all parameters that enter both the linear and non-linear specifications, the prior distributions are identical in both specifications. For the squared and cubic public debt terms, which enter only the non-linear specification – the respective prior distributions are displayed in brackets.

Note that for all priors, we are somewhat non-informative, as the displayed 80 percent highest prior density intervals cover a wide range of parameter values.[88] The prior means are informed by means of both frequentist estimates and, if available, estimates from three similar fiscal reaction function studies. For the current exercise, studies were that analyze fiscal behavior in developing and emerging market economies (with the sample of Shastri et al., 2017 containing only South Asian economies, while the panel study of Bui, 2020 looks into 22 Asian economies, including Bhutan).

Variable	Sources
Primary balance	IMF World Economic Outlook Database, October 2022 (general government primary net lending/ borrowing, % of GDP).
(Lagged) Public debt	IMF World Economic Outlook Database, October 2022 (general government gross debt, % of GDP).
(Lagged) Public non-hydro debt	Ministry of Finance. Data prior to 2002 is extrapolated using the public debt series above.
Output gap	IMF World Economic Outlook Database, October 2022 (Hodrick-Prescott filtered real GDP series with lambda = 100, as common for annual data. Real GDP is obtained as nominal GDP / GDP deflator.
Expenditure gap	IMF World Economic Outlook Database, October 2022 (Hodrick-Prescott filtered real primary government expenditure with lambda = 100. Real primary government expenditure is obtained as total expenditure minus net interest, deflated with the GDP deflator.
Consumer price inflation	IMF World Economic Outlook Database, October 2022 (inflation, average consumer prices, percentage change).

88 See Berti et al., 2016 and Checherita-Westphal and Žďárek, 2017 for comprehensive literature reviews of the empirical studies on fiscal reaction functions.

Appendix 2: Methodology for Assessing Tax Potential and Tax Gap

Tax gap refers to the difference between tax revenue collection potential (economic, structural or institutional) and tax revenues actually collected. The estimation of the structural tax gap essentially predicts tax to GDP ratio of a given country based on its economic, structural, demographic and institutional features. The model can be represented as follows:

$$Y_{it}=\beta 0+\beta 1pop_{it}+\beta 2gni_{it}+\beta 3urban_{it}+\beta 4age_{it}+\beta 4agri_{it}+\beta 5trade_{it}+\beta 6imp_{it}+\beta 6inf_{it}+$$

$$\beta 7voice_{it}+\beta 8goveff_{it}+\beta 9reg_{it}+\beta 10rule_{it}+\beta 11corrupt_{it}+\beta 11pol_{it}+\beta 12school_{it}+\beta 13oil_{it}+\beta nRegionDummies+\varepsilon_{it}$$

The subscripts denote country (*i*) and year (*t*) and *y* denotes the outcome variable of interest, namely the different tax to GDP ratios. Different independent and dependent variables and their sources are presented in table A2.1. The panel consists of unbalanced data for 124 countries over the period 2000 to 2021. This results in samples with 2,199 to 2,211 observations. Panel Corrected Standard Errors is used for empirical estimation and the model considers the possibility of contemporaneous correlations, accounting for the deviations from spherical errors and allowing for better inference from linear models. The econometric method broadly follows Khwaja and Iyer (2014) and World Bank (2020).

Table A2.1: Variable Definitions and Sources

Variables	Sources
Total Taxes (% GDP)	IMF Government Finance Statistics
Taxes on Goods and Services (% GDP)	IMF GFS
Taxes on Incomes and Profits (% GDP)	IMF GFS
Taxes on Trade and Transactions (% GDP)	IMF GFS
Taxes on Property (% GDP)	IMF GFS
Population growth (annual %)	World Bank World Development Indicators
GNI per capita, Atlas method (current US$)	World Bank WDI
Urban population (% of total population)	World Bank WDI
Age dependency ratio (% of working-age population)	World Bank WDI
Agriculture, forestry, and fishing, value added (% of GDP)	World Bank WDI
Trade (% of GDP)	World Bank WDI
Imports of goods and services (% of GDP)	World Bank WDI
Inflation, consumer prices (annual %)	World Bank WDI
Oil rents (% of GDP)	World Bank WDI
Expected Years of Schooling	UNDP Human Development Reports
Voice and Accountability	World Bank World Governance Indicators (WGI)
Government Effectiveness	World Bank WGI
Regulatory Quality	World Bank WGI
Rule of Law	World Bank WGI
Control of Corruption	World Bank WGI
Political Stability	World Bank WGI

Table A2.2: Structural Tax Gap Estimation

	Total Taxes	Taxes on Goods and Services	Taxes on Incomes and Profits	Taxes on Trade and Transactions	Taxes on Property
Population growth	0.11775*	-0.11390**	0.32258***	-0.06757**	-0.00465
	[0.069]	[0.046]	[0.071]	[0.029]	[0.011]
GNI per capita	-0.00009***	-0.00010***	0.00001*	-0.00001**	0.00001***
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Urban population	-0.06797***	-0.02399***	-0.01107**	-0.03835***	-0.00046
	[0.007]	[0.003]	[0.005]	[0.003]	[0.001]
Age dependency ratio	0.05815***	0.01759***	0.02526***	0.00376*	0.00263**
	[0.010]	[0.005]	[0.008]	[0.002]	[0.001]
Agriculture, forestry, fishing	-0.21472***	-0.07164***	-0.07403***	-0.06903***	-0.00253**
	[0.018]	[0.005]	[0.012]	[0.007]	[0.001]
Trade	-0.00463	-0.03085***	-0.00418	0.02080***	0.00283***
	[0.008]	[0.006]	[0.005]	[0.003]	[0.001]
Imports of goods and services	0.04056**	0.08629***	-0.00175	-0.03285***	-0.00451***
	[0.017]	[0.012]	[0.010]	[0.007]	[0.001]
Inflation	-0.00195	-0.00392**	0.00702***	-0.00559***	0.00009
	[0.004]	[0.002]	[0.002]	[0.002]	[0.000]
Voice and Accountability	3.03653***	1.08169***	1.89436***	0.04494	0.06479***
	[0.246]	[0.128]	[0.155]	[0.044]	[0.013]
Government Effectiveness	1.11018***	-0.15590	2.52750***	-1.24586***	-0.02679
	[0.352]	[0.226]	[0.288]	[0.161]	[0.034]
Regulatory Quality	-0.97175**	-0.27776	-0.38229*	-0.21502*	-0.09440**
	[0.401]	[0.244]	[0.227]	[0.122]	[0.039]
Rule of Law	-4.66312***	-0.18563	-4.00024***	-0.62897***	0.01691
	[0.903]	[0.281]	[0.656]	[0.208]	[0.036]
Control of Corruption	3.41559***	0.42744***	1.63783***	1.30557***	0.15031***
	[0.408]	[0.150]	[0.232]	[0.136]	[0.026]
Political Stability	0.86955***	0.26065***	0.09896	0.62865***	-0.03101**
	[0.148]	[0.079]	[0.103]	[0.059]	[0.015]
Expected Years of Schooling	0.71724***	0.35995***	0.37559***	-0.01035	-0.01712***
	[0.041]	[0.021]	[0.035]	[0.016]	[0.005]
Oil rents	-0.16246***	-0.10132***	0.00460	-0.05105***	-0.00479***
	[0.018]	[0.011]	[0.011]	[0.004]	[0.001]
EAP dummy	-1.42495***	-0.46301***	0.09120	-1.18291***	0.09030***
	[0.318]	[0.110]	[0.288]	[0.131]	[0.023]
ECA dummy	1.00196***	3.85374***	-1.93094***	-1.18153***	0.22111***
	[0.230]	[0.096]	[0.193]	[0.133]	[0.063]

	Total Taxes	Taxes on Goods and Services	Taxes on Incomes and Profits	Taxes on Trade and Transactions	Taxes on Property
LAC dummy	-3.10112*** [0.310]	1.13823*** [0.143]	-3.17002*** [0.138]	-1.30726*** [0.143]	0.23648*** [0.028]
SAR dummy	-3.16572*** [0.388]	-1.11043*** [0.203]	-1.14489*** [0.272]	-1.15209*** [0.165]	0.00202 [0.034]
MENA dummy	3.17354*** [0.638]	2.45382*** [0.282]	0.40166 [0.386]	-0.06904 [0.126]	0.11387*** [0.026]
Constant	9.65402*** [0.830]	3.19402*** [0.516]	1.62240** [0.674]	5.78947*** [0.494]	0.09033 [0.164]
Observations	2,211	2,199	2,211	2,211	2,207
R-squared	0.394	0.509	0.309	0.292	0.131
Number of countries	124	124	124	124	124

Standard errors in brackets, *** p<0.01, ** p<0.05, * p<0.1

The model has good fit, coefficients have expected signs, and are mostly statistically significant. The results are presented in table A2.2. Population growth has a positive effect on total taxes and taxes on income and profits. But it has a negative impact on taxes on goods and services and trade and transactions. This is reflective of high-income countries with lower population growth having more revenue from direct taxes than indirect taxes. This is also borne out by higher GNI per capita being associated with higher taxes on incomes and profits and property but negative impact on taxes on goods and services and trade. Age dependency ratio has a positive impact on taxes, while urban population and large share of agricultural sector has a negative impact. Higher urban population may be associated with lower effective tax rates given a certain level of income due to higher productivity of urbanized economies. Trade has obviously a positive impact on trade taxes but a negative impact on taxes on goods and services. Inflation has a negative impact on indirect taxes but a positive impact on direct taxes. Institutional indicators such as voice and accountability, control of corruption and political stability are generally associated with higher tax yields as is higher expected years of schooling. The rule of law indicator alone has negative impact on some taxes perhaps indicating the expropriatory nature of some regimes.

The predicted tax collection is arrived at by as a sum of the product of the estimated coefficients and the relevant variables. This is calculated for each country and for each year for which data is available. This is calculated separately for the total taxes and each of the tax categories namely, taxes on goods and services, taxes on income, taxes on trade and transactions and taxes on property. The predicted value minus the actual is taken as the tax gap. Positive values indicate a tax gap while negative shows a higher than predicted collection. The tax effort is computed as actual tax collections as a percentage of predicted tax collections. Values less than 100 indicate a shortfall while those greater reveal an excess.

The results of the structural analyses should be interpreted and used with some caveats. The potentials estimated should not be interpreted as maximum or optimal levels of tax-to-GDP to be strictly and rigorously targeted by the authorities. There is no distinction between legal and economic tax bases, or between policy and administrative gaps. The model also does not account for all non-tax revenue or capital receipts. Nevertheless, it gives a broad sense of how well or poorly a country is doing in terms of tax collections vis-à-vis peers, and also its own estimated potential.

Appendix 3: Bhutan's key tax legislations

The modernization of tax system in Bhutan started in early 1990's. Prior to 1960, the taxes were collected mainly in kind due to the predominance of an informal economy and the absence of a clearly orchestrated revenue mobilization policy (Rao, 2009). With the launch of the Five-Year Plan in 1961, taxes were levied on land, business income and consumption. The first major tax reform was in 1989 which was revisited in 1992. As per the Revised Taxation Policy, 1992, besides generation of adequate revenues for Bhutan to eventually become self-reliant, taxation is considered a major policy instrument to promote growth, regulate external trade and ensure equitable distribution of income. Bhutan's tax policy is driven by following legislations -

S. No.	Name of Act	Applies to	Purpose
1.	**Income Tax Act, 2001**	Individuals, Businesses, Corporates	Levy tax on income of natural persons (PIT), businesses (BIT), and corporates (CIT)
2.	**Fiscal Incentives Act, 2021**	Businesses, Corporates	Provide direct and indirect tax incentives to businesses under Income Tax Act, Sales Tax, Customs and Excise Act, 2000 and Customs Duty Act, 2017
3.	**Sales Tax, Customs and Excise Act, 2000**	Sales and production	Levy sales tax on goods and services and excise on production
4.	**Tax Act of Bhutan, 2021**	Tobacco and tobacco products	Revise sales tax on tobacco products from 100% to 0% w.e.f. 22 June 2021
5.	**Customs Act, 2017**	Imports of goods	Levy tax at the point of entry on value of goods imported
6.	**Customs Duty Act, 2021**	Imports of goods	Specify custom duty payable on goods classified in Bhutan Trade Classification
7.	**Tourism Levy Act, 2022**	Tourists visiting Bhutan	Levies sustainable development fee (SDF) of 200 USD per night; replaces the Tourism Levy Act, 2020 which levied SDF of 1200 Nu per night on tourists from India, Bangladesh, and Maldives and 65 USD per night on other international tourists.
8.	**Goods and Services Tax Act, 2020**	Goods and services	Implementation postponed till GST system is ready; Levies GST at specified rates on taxable values of supplies
9.	**Property Ownership Transfer Tax Act of Bhutan 2020**	Transfer of land, buildings, and motor vehicles	Levy 3% of sale value or assessed value in case of transfer of land or building and 1% of sale value or assessed value in case of motor vehicles
10.	**Mines and Minerals Management Act, 1995**	Exploitation of mines and minerals	Exploitation of mines and minerals within the framework of sustainable development, protection of the environment and preservation of Bhutan's precious religious and cultural heritage.

Appendix 4: Structure of various direct and indirect taxes

	Rates	Exemptions	Notes
Direct Taxes			
Corporate Income Tax	30 percent for SEs 25% for Others	Numerous tax holidays are in effect	Levied on all income, including capital gains and intercorporate dividends.
Business Income Tax	30 percent	Numerous tax holidays and concessionary rates are in effect	Imposed on all non-corporate businesses
Personal Income Tax	Progressive slabs of 10, 15, 20, and 25 percent.	Basic exemption of Nu 200,000 per person	Imposed on wages, salaries, interest income, dividends, and other sources including sale of cash crops, hiring out equipment and private vehicles, and intellectual property. Capital gains are not taxed.
Property Tax	Dzongkhag Municipal taxes comprises urban land tax, underdevelopment land tax and urban house tax.	Properties in Thimphu and Phuentsholing are not covered	
Indirect Taxes			
Bhutan Sales Tax (BST)			
Point of entry (POE)	0, 5, 10, 15, 20, 30, 50, and 100 percent	1. Purchase of plant and machinery and accessories by manufacturing or service unit. 2. Raw materials imported by a manufacturing unit.	Most revenue is raised in 5, 10, and 15 percent bands. One quarter of value of imports estimated to enter zero-rated.
Point of sale (POS)	Rates applicable on selected items: Cement (5%) Aerated water (30%) Beer manufacturers (50%) Beer importers (50%) Hotels and restaurants (10%) Cable TV operators (30%) Cinema operators (30%) Telecom services to tourists (7%) Vehicles (10%)	Sales tax on all prepaid and postpaid telecom services is exempt.	Motor vehicles were taxed at POE till 2018 when they are shifted to POS

	Rates	Exemptions	Notes
Customs	0, 5, 10, 15, 20, 30, 50, and 100 percent	1. Import duties are not imposed on India under FTA, preferential rates applied to SAARC countries. 2. Energy efficient appliances and hybrid vehicles are exempt.	Most items taxed at 10, 20 and 30 percent. 40 percent of customs duty is collected on items falling under 20 percent rate.
Excise	Excise on domestic alcohol (30, 60, 75 precent)		Levied on ad-valorem basis on ex-factory price
Green Tax	2.5, 5, 10, 15, 20 percent on vehicles 5 percent on petrol, diesel	Electric vehicles are exempt	
Property transfer tax	3% on sale value of land or building; 1% on sale value of motor car Applicable to all transfers on or after 16th Jan 2020	Certain transfers are exempt including those between immediate family members	
Sustainable Development Levy	Sustainable development fee (SDF) of 200 USD per night levied on international tourists;	Preferential rate of 1200 Nu per night for Indian tourists for 2 years; Tourism Council of Bhutan may provide exemption or concession	replaces the Tourism Levy Act, 2020 which levied SDF of 1200 Nu per night on tourists from India, Bangladesh, and Maldives and 65 USD per night on other international tourists.

Source: https://www.mof.gov.bt; Aide Memoire of 2009 Indirect Tax Reform mission, IMF.

Appendix 5: Comparative analysis of Fiscal Incentives Act 2017 & 2021

Purpose of Incentive	FI Act, 2017	FI Act, 2021
Foster capital expenditure (capex)	• 25% reinvestment allowance on capex to manufacturing and service industries • ST & CD exemption on P&M for manufacturing and services	• Upto 100% of capital expenditure allowed as investment allowance for an approved project in high-priority sector if capex made during qualifying period • For approval of project, application needs to be made during 1st Jan 2022 to 31st Dec 2026
Manufacturing industry	• ST & CD exemption on permissible raw materials • ST&CD exemption to hydroelectric projects, other renewable energy projects • ST & CD exemption on equipment by construction industry	• ST & CD exemption on P&M, raw material, packaging material
Encourage exports	• 10-year tax holiday on export earnings in foreign currency to new manufacturing and IT service industries	
Environment-friendly	• Tax rebate of 15% of expenses to adopt environment-friendly technologies • ST & CD exemption on green building material for construction industry • 5-year tax holiday, ST & CD exemption to wase management and recycling industries	• Investment allowance of upto 100% of capital expenditure on energy efficiency projects, waste management and recycling projects. • Concessionary tax rate of 5% for new businesses and 15% for existing businesses in waste management sector
Locational	• Tax holiday to small and micro businesses located in rural areas	• Tax holiday to small and micro businesses located in rural areas till 31st Dec 2024 • Concessionary tax rate of 10% for businesses in the border towns of Gelephu, Phuentsholing, Samtse, and Samdrup Jongkhar
Employment generation	• Tax rebate of 10% if 100% Bhutanese employed not less than 20 employees	• Tax deduction of 100% of emoluments paid to every additional Bhutanese national and retained for at least one year
Education and skill development	• Tax exemption on interest income to financial institutions on preferential lending for education, skill development, and overseas employment • ST & CD exemption on buses, equipment purchased by educational and vocational institutes	• Tax exemption on interest income to financial institutions on preferential lending approved by RMA, including for education, skill development, and overseas employment till 31st Dec 2026

Purpose of Incentive	FI Act, 2017	FI Act, 2021
Encourage use of locally manufactured construction material		• Additional tax deduction of 30% of purchases of locally manufactured construction material till 31st Dec 2026
Sector-specific	• 10-year income tax holiday, ST & CD exemption to CSIs and cooperatives • 10-year income tax holiday to new mining businesses and 5-year tax holiday to existing mining businesses, ST & CD exemption on P&M • 10-year income tax holidays, ST & CD exemption to hotels, ST & CD exemption to tour operators on purchase of buses, adventure sports equipment • 10-year income tax holiday, ST & CD exemption to agricultural businesses • 5-year income tax holiday to new educational institutions outside Thimpu / Phuentsoling • 5-year income tax holiday to selective private health services, ST & CD exemption on medicines, medical supplies and equipment • 5-year income tax holiday to ICT sector, ST & CD exemption on purchase of IT software, hardware, IT park developer, media industry • 3% TDS exemption on aircraft lease payments by domestic airlines • 5-year tax holiday to taxi / car-hire business, ST & CD exemption on purchase of buses by passenger transport businesses • 10-year tax holiday to business infrastructure developer	• Tax holidays upto 10 years to qualifying activities in high-priority sectors namely (1) Agriculture and Renewable Natural Resources (RNR), (2) Business Infrastructure Development, (3) Cooperatives, (4) Creative Industry, (5) Education, applicable to educational institutions with International Accreditation, (6) Energy, excluding hydroelectric projects; and (7) Tourism, applicable to hotels only. • Tax holiday subject to conditions in Certificate of Approval • Concessionary tax rate of 5% for new businesses and 15% for existing businesses in CSI, Education, ICT, and waste management sector • 3% TDS exemption on aircraft lease payments by domestic airlines • ST & CD exemption to purchases of high-priority sectors namely Agriculture, Construction, Creative, CSI, Education, Energy, Health, ICT, • ST & CD exemption on equipment purchase in Mining Sector, Tourism, Transport, Waste Management industries
Boost digital payment infrastructure	• ST & CD exemption on PoS machines, ATM, cash registers	• ST & CD exemption on PoS machines, ATM, cash registers upon approval by Ministry

Appendix 6: Details of COVID-19 Expenditure (in BTN millions)

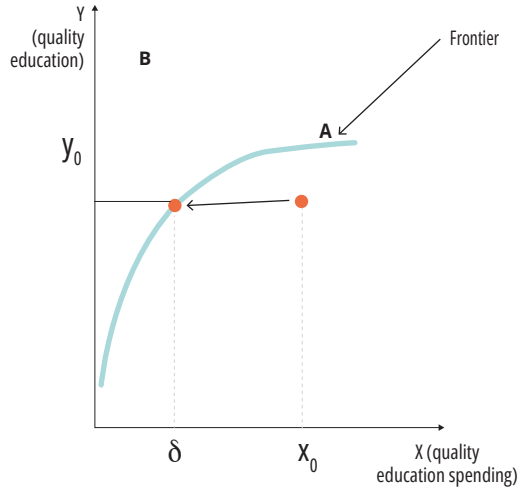
Particulars	Cumulative expenditure (FY19/20 & FY 20/21)		FY21/22		Total	
	Current	Capital	Current	Capital	Current	Capital
Health (PPE, drugs, non- drugs and flu clinics)	78.607	1,496.672	-	275.460	78.607	1,772.132
Essential food and fuel	247.829	740.848	-	73.728	247.829	814.576
Quarantine (logistics and food)	788.751	6.942	-	951.865	788.751	958.807
Others (Structure - Roads, temporary shelters, etc)	0.448	578.277	-	697.892	0.448	1,276.169
Others (non- structural COVID related miscellaneous expenses)	368.225	549.219	-	631.742	368.225	1,180.961
Vaccine	-	-	-	671.879	-	671.879
Total	**1,483.860**	**3,371.958**	**-**	**3,302.566**	**1,483.860**	**6,674.524**
Grand Total	**4,855.8 (1.3 percent of GDP)**		**3,302.5 (1.7 percent of GDP)**		**8,158.384**	

Source: Budget Report FY21/22

Appendix 7: Methodology for education and health expenditure efficiency analysis

Annex Figure 1 presents an illustration of the efficiency analysis using the frontier approach. Let's assume that countries use one input X (public education expenditure) to produce a single output Y (an indicator of access to quality education). The frontier represents the maximum amount of output that can be produced given different levels of the input X. Countries below the frontier are considered relatively inefficient while those on the frontier are considered relatively efficient. For instance, a given country uses x_0 to produce y_0 and is at point A in Annex Figure 1. The point A being below the frontier, this country is considered inefficient. It would have been efficient if the same level of output (y_0) was achieved with fewer resources ([[OMML-EQ-1]]x_0, with), corresponding to point B on the frontier. This means that x_0 -[[OMML-EQ-2]]x_0 is the corresponding volume of financial resources wasted because of inefficiency in the use of public expenditure on education. The distance to the frontier, captured by [[OMML-EQ-3]], can be used to calculate an efficiency score that reflects the ability of each country to translate their input into output.

Figure A7.1: Illustration of the frontier approach



The stochastic frontier model is estimated using equation 1 and 2 below. Consider input [[OMML-EQ-4]], and the output [[OMML-EQ-5]] Following Battese & Coelli (1995), the frontier function is given by:

$$Log(y)_n = Log[f(x)_n] + u_n - \lambda_n \quad (1)$$

with *n* an indicator for countries.

The function *f(.)* approximates the maximum educational outcomes that can be achieved given different levels of education spending. Deviations from the estimated production frontier are attributable to inefficiency (λ_n), as well as "noise" (u_n). λ_n captures the *inefficiency* with which education expenditure is translated into educational outcomes in country *n*. u_n is normally distributed while λ_n follows a half-normal distribution.[89]

89 There are three distribution commonly used to approximate the inefficiency parameter: truncated normal, half-normal and exponential distributions. Section 4 provides a discussion on alternative distributions.

The efficiency in the use of public financial resources allocated to the education sector may be influenced by some environmental factors (countries' income level, institutional capacity, etc.). Derivation of the efficiency indicator should take into consideration these environmental factors. Following Battese & Coelli (1995), Equation 2 allows an estimation of the explanatory factors for λ_n while Equation 3 gives a final *efficiency* score that is corrected for factors that could have undermined the accuracy in the estimation of the inefficiency measure λ_n.

$$\lambda_n = Z_n\eta + w_n \quad (2)$$

$$TE_n = \exp\left(-\lambda_n\right) = \exp\left(-Z_n\eta - w_n\right) \quad (3)$$

where w_n is an error term that is normally distributed and is truncated at the point $Z_n\eta$, with mean 0 and variance σ_w^2. Z_n is the matrix of explanatory variables that include some explanatory factors of the inefficiency parameter λ_n, η is a vector of parameters to be estimated and TE_n is the technical efficiency.

Equations 1 and 2 are estimated simultaneously with the maximum likelihood method, using the likelihood function suggested by Battese & Coelli (1995) and the efficiency score is calculated using Equation 3. Two main functional forms are used in the literature for *f(.)*: The translog function and the Cobb Douglas function. The translog function is more flexible as it allows the frontier to be quasi-concave. *f(.)* is then approximated by a translog function. The translog function is suitable for capturing the concave relationship between public expenditure and educational outcomes. It is assumed that an additional unit of expenditure has a lower impact compared to the previous unit.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