

**Bhutan: 2011 Article IV Consultation—Staff Report; Staff Supplement; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Bhutan**

Under Article IV of the IMF’s Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2011 Article IV consultation with Bhutan, the following documents have been released and are included in this package:

- The staff report for the 2011 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on March 29, 2011, with the officials of Bhutan on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on May 13, 2011. The views expressed in the staff report are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF.
- A staff supplement on the joint IMF/World Bank Debt Sustainability Analysis.
- A Public Information Notice (PIN) summarizing the views of the Executive Board as expressed during its May 27, 2011 discussion of the staff report that concluded the Article IV consultation.
- A statement by the Executive Director for Bhutan.

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BHUTAN

**Staff Report for the 2011 Article IV Consultation**

Prepared by the Staff Representatives for the 2011 Consultation with Bhutan

Approved by Laura Papi and Christian Mumssen

May 13, 2011

- **Mission.** A staff team consisting of R. Guimarães (chief), Eteri Kvintradze, and Ding Ding (all APD) visited Thimphu from March 18 to 29, 2011. Mr. Choudhary (OED) joined the mission.
- **Outlook and risks.** Bhutan's growth outlook is favorable, underpinned by hydropower and services sectors. Growth in India should continue to boost hydropower exports. Risks are broadly balanced and stem mainly from growth in India and lower than envisaged aid flows.
- **Main policy issues.** A recalibration of policy settings is required to address the following challenges: (i) the risk of overheating; (ii) debt sustainability; (iii) weak management of public finances and monetary operations; and (iv) rapid credit growth. Implementing structural reforms that will boost private sector participation will also be important for longer-term growth and job creation.
- **Past advice.** In previous consultations, the authorities and staff shared the view that meeting fiscal objectives was important to safeguard the credibility of the peg. They also concurred that containing credit growth is instrumental in preventing overheating and balance payment pressures. The authorities have implemented some of the staff's recommendations, including increasing competition in the banking sector and streamlining tax rates.
- **Exchange rate regime.** The *de facto* (and *de jure*) exchange rate regime is a conventional peg to the Indian rupee. Bhutan continues to avail itself of transitional arrangements under Article XIV, Section 2 and maintains restrictions under it. Bhutan also maintains an exchange restriction subject to Fund approval under Article VIII, Section 2(a).

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## EXECUTIVE SUMMARY

**Context:** Bhutan's rapid growth has been underpinned by hydropower sector development with donor support, and its strong ties with India. Since 2008/09, however, the fiscal position has deteriorated because of higher spending and sluggish revenue, and inflation has risen. The medium-term outlook remains favorable provided the near-term challenges are addressed and structural reforms implemented.

### **Policy messages:**

- Tighten fiscal policy in the near term by controlling current spending. The current balance should remain in surplus to limit domestic financing, which will shore up macroeconomic stability.
- Broaden the revenue base and improve public financial management by adopting a multi-year rolling budget to help ensure debt sustainability.
- Improve monetary operations and liquidity management. The policy rate should be better aligned with India's money market rates to ensure the sustainability of the exchange rate peg. A more active management of convertible currencies reserves would help address rupee shortages.
- Strengthen regulatory and supervision capacity of the Royal Monetary Authority (RMA) to safeguard financial stability in an environment of rapid credit growth.
- Advance the implementation of structural reforms to facilitate private sector investment and boost competitiveness, as envisaged in the authorities' new Economic Development Policy (EDP).

## I. CONTEXT

1. **Following its transition into a parliamentary democracy in 2008, Bhutan has enjoyed political stability.** Local elections were held in January 2011 and the process of transition to a full participatory democracy has proceeded steadily. The government has implemented its economic policies to improve Gross National Happiness (GNH) and ensure sustainable development. The 10<sup>th</sup> five-year plan (FYP) encompasses ambitious socio-economic goals.

2. **Bhutan's economic performance in recent years has been strong, driven by hydropower sector development and donor support.** Growth averaged 8 percent in the last decade benefiting from the country's strong ties to India, which currently absorbs about 95 percent of Bhutan's exports (about half of which is hydroelectricity) and supplies three-fourths of its imports. Inflation has been historically low, but has risen, reflecting trends in India and the ngultrum's peg to the Indian rupee.<sup>1</sup>

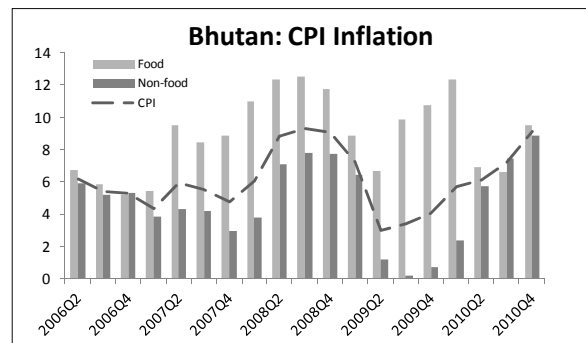


3. **Bhutan's progress on social indicators has been steady.** Primary school enrollment ratio has risen significantly over the fifteen years. Gender equality has also improved, as have health indicators such as infant mortality, which has been nearly halved since 1995. Progress has also been made on poverty reduction. Overall, Bhutan is on track or has achieved most of the Millennium Development Goals.

## II. MACROECONOMIC OUTLOOK AND RISKS

### *Recent Developments*

4. **Growth has been strong, but inflation has risen.** GDP growth accelerated to an estimated 7.5 percent in 2009/10, underpinned by services, construction, and the hydropower sector. However, inflation rose sharply, doubling to 9 percent at end-2010 from the year before. While initially food prices were the main culprit, price pressures have become generalized, as in India.



<sup>1</sup> For the whole document, rupee refers to Indian rupee.

5. **The external position has deteriorated, but remains manageable.** The current account deficit has increased to about 13 percent of GDP due to strong imports related to the construction of hydropower plants, but the overall balance of payments has remained in surplus due to sizable grants and loans disbursements. The reserve position has remained comfortable. Despite some recent appreciation, the real effective exchange rate has been stable and close to its ten-year average.

### *Outlook and Risks*

6. **Bhutan's near-term outlook is favorable, but overheating risks loom.** Growth is expected to remain at around 8 percent. The current account deficit will remain high due to hydropower-related imports, but financing from India and other development partners is expected to be adequate. As a result, the overall balance of payment is projected to remain in surplus. Inflation is expected to decline while remaining somewhat elevated (at around 6 percent), in line with developments in India. In light of high commodity prices and increased pass-through from global prices to prices in India, inflation risks are to the upside.

7. **Despite challenges, the medium-term outlook is also positive.** Growth is projected to remain robust at 8–9 percent over the remainder of the 10<sup>th</sup> Five Year Plan (FYP; 2011–13), in part driven by the construction of new hydropower projects. The current account deficit is expected to widen as the construction of the Puna and other hydropower projects pick up steam. Pressure on the overall balance of payments, however, is expected to remain manageable as associated loan disbursements from India are also projected to increase.

8. **The risks to this outlook are broadly balanced.** In the near term, growth in India should continue to boost Bhutan's exports, but on the downside, rapid credit growth and overheating could increase vulnerabilities. Over the medium term, implementing key structural reforms is critical to sustaining rapid growth. On the upside, if the development spending crowds in more private sector investment, higher productivity could provide a boost to the economy. Strong growth in India should also continue to underpin export growth. At the same time, private sector development could slow down if implementation capacity constraints are not eased and the provision of infrastructure by the public sector falls short of envisaged levels. Aid inflows — particularly current grants — are expected to decline, as Bhutan's per capita income has risen rapidly over the last decade.<sup>2</sup> Medium term prospects would also suffer if public investment financing needs are not met by domestic revenue.

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<sup>2</sup> Current grants in the form of budgetary support are projected to decline by 7 percentage points to about 10 percent of GDP over the next couple of years as developing partners scale down their operations. Capital transfers, on the other hand, are tied to hydropower projects and are envisaged to remain high.

*Authorities' views*

9. **The authorities broadly share this assessment.** They forecast similar growth rates in the near term, but expect slightly stronger growth over the longer term. As in staff's baseline scenario, they also project a widening current account deficit (in relation to GDP) as the construction of hydropower projects advances further, followed by a correction from 2018.

10. **The authorities share the staff's view that risks are balanced.** They view them stemming mainly from India's economic situation. Unlike staff, the authorities do not see an immediate risk of overheating, but are monitoring credit growth closely. They agree with the staff that the medium-term challenges revolve around the need to create fiscal space to finance investment as aid inflows decline and the need to implement structural reforms that will boost private sector growth and competitiveness.

### Box 1. Hydropower Sector Issues

Bhutan's hydropower development has been an important driver of its rapid growth since the first major hydropower plant (Chhukha, 336MW) was commissioned in 1988. In 2006, when the 1,020 MW Tala plant came on stream, GDP growth jumped by 5½ percentage points. Currently, the hydropower sector alone constitutes around 20 percent of Bhutan's economy, and growth in electricity production and related construction accounts for about one third of GDP growth.

Bhutan currently harnesses a little over 1,480 MW of hydropower electricity, about 5 percent of its estimated potential. The government aims to achieve a total installed capacity of 10,000 MW by 2020. Construction work of three new projects (Puna-I with a capacity of 1,200 MW, Puna-II with a capacity of 990 MW, and Mangdechhu with a capacity of 720 MW) has commenced, and is expected to be completed by around 2017.

Domestic consumption accounts for only about 20 percent of Bhutan's electricity generation, and low domestic electricity tariffs have been a major contributor to the country's competitiveness. Hydropower exports to India accounts for almost 40 percent of Bhutan's total goods exports in 2009/10, or about 15 percent of GDP. So far, all the major hydropower projects are financed by the Government of India through a combination of loans and grants. Four future projects will be developed as joint ventures with Indian public sector companies with a debt-to-equity ratio of 70:30 and the Indian partner allowed 51 percent equity stake.

The hydropower sector is an important contributor to fiscal revenue, with earnings from the hydropower sector (corporate income tax and transfers of dividends) accounting for 23 percent of total revenue in 2009/10. However, hydro-related revenue as a share of GDP is projected to decline until the new projects come on stream, as the electricity export price is fixed and the construction of the new hydropower plants is exempt from taxes.

Bhutan's hydropower revenue is also subject to strong seasonality due to the seasonal changes in water levels and the lack of water storage capacity. More than 50 percent of the annual revenue is generated in the third quarter. This in turn poses challenges to the government to manage its outflows throughout the fiscal year with volatile resources. Against this background, the government has continued to assess alternatives to develop a strong cash management system based on accurate and timely forecasting of government's cash inflows and outflows to help mitigate the impact of revenue fluctuations and smooth public sector outlays.

When electricity generation shrinks in the dry winter months (January–March), there is a shortage of power for domestic consumers and the country has to import electricity from India at a relatively high cost. As the economy continues to grow rapidly, increasing domestic electricity demand will intensify the seasonal power shortage problem until the new projects are commissioned. Several strategies, including load shedding for power-intensive industries, are being considered by the government to address this issue.

Public debt incurred by the hydropower projects accounts for about half of Bhutan's total debt, which currently stands at around 80 percent of GDP and is projected to exceed 110 percent in 2014/15. The risks of large public and external debt are mitigated by the commercial viability of the hydropower projects, which benefit from India's strong energy demand.

Hydropower Projects in the Pipeline

Project	Capacity (MW)	Construction Schedule	Development Model
Puna-I	1200	2008-2015	IG 1/
Puna-II	990	2010-2016	IG
Mangdechhu	720	2010-2016	IG
Sankosh Storage	4060	2011-2020	IG
Kuri-Gongri	1800	2012-2019	IG
Amochhu Storage	620	2012-2018	IG
Wangchhu Storage	600	2012-2020	JV 2/
Bunakha Storage	180	2012-2018	JV
Kholongchu	650	2012-2018	JV
Chamkharchhu-I	670	2012-2018	JV

Source: Royal Monetary Authority of Bhutan Annual Report 2009/10

1/ Inter-governmental undertakings with the Government of India

2/ Joint venture undertakings with Indian public sector companies



**Box 2. Dealing with Revenue Volatility**

Fiscal revenue generated by the hydropower sector has been a key contributor to higher public investment in Bhutan. However, due to the nature of the projects execution and financing, hydropower revenue and foreign grants have been highly volatile. For instance, nontax revenue rose from 8.5 percent of GDP in 2005/06 to 17.9 percent in 2008/09 when the Tala project came on stream and paid profit transfers, but declined to 10 percent in 2009/10 when Tala became a corporation and its revenue contribution appeared in corporate tax and dividends instead.

At the macro level, the volatility in revenue reflects in part a narrow tax base and little economic diversification. The share of electricity in aggregate revenue is estimated to average 27 percent during the 10<sup>th</sup> Five Year Plan period (2008/09–2012/13). Grants amount for 37 percent of total revenue, with 80 percent of them tied to specific projects. Other taxable activities raise relatively little revenue: for instance, sales tax was 1.5 percent of GDP in 2008/09, less than half in the average of Asian LICs.

Hydropower revenue is also subject to strong seasonality due to the seasonal changes in water levels. More than 50 percent of the annual revenue is generated in the third quarter of the year. This in turn poses challenges to the government to manage its outflows throughout the fiscal year with volatile resources.

Volatile revenue and grants have often been reflected in volatile public spending, and have had a negative impact on the level of public investment. A medium-term fiscal framework is needed to ensure a sustainable fiscal position while minimizing the impact of volatility on the budget and delivering a more counter-cyclical fiscal policy. In this connection, a smoothing mechanism could be considered that requires the budget to run surpluses in good times and enables fiscal policy to offset the decline in hydro-related revenue and grants.

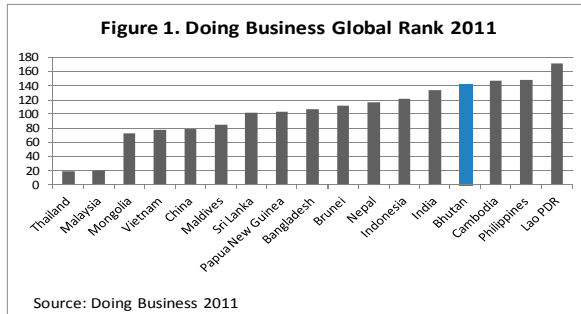
A cash management system based on accurate and timely forecasting of government's cash inflows and outflows can also help mitigate the impact of temporary cash shortfalls and smooth public sector outlays. On this front, the introduction of the T-bills in 2009 is a welcome step.

Efforts are also needed to increase non-hydropower sector revenue to offset the decline in hydropower related revenue as both income tax and dividend payments from hydropower projects are set in nominal terms and thus would decline as a share of GDP. Moreover, the only new power sector project expected to come on stream during the 10<sup>th</sup> Plan is the Dagachu project (114 MW). Options that have received consideration include replacing the existing sales tax with a broader-based value-added tax and unifying the business income tax and personal income tax.

Finally, country experiences show that only those resource-producing countries with a sound institutional framework and a robust Public Financial Management system have managed to effectively deal with the "resource curse".

### Box 3. Ease of Doing Business in Bhutan

Bhutan's economy is dominated by the hydropower sector, but other economic activities are underdeveloped, partly because it lags behind most emerging economies in Asia on ease of doing business. In *Doing Business 2011*, Bhutan ranks 142<sup>nd</sup> among the 183 economies, and its performance is particularly weak in categories of getting credit, protecting investors, trading across borders, and closing a business.



The “getting credit” indicator reflects credit information registries and the effectiveness of collateral and bankruptcy laws in facilitating lending. Even though credit to the private sector is growing fast in Bhutan, access to finance is considered a major constraint to private sector development. The time firms spend to comply with government regulations and the associated costs are higher compared to regional and international averages. Given the country's landlocked geography, the cost of transportation and trading across borders is high.

For countries that rely heavily on exports, improving the ease of doing business can facilitate the growth in non-tradable sectors through better allocation of capital and labor. This is particularly relevant for Bhutan as it attempts to diversify non-hydropower sectors. The experience of other small LIC economies can be useful. Zambia, a major copper producer, was named among the top ten economies that have improved the ease of doing business by the World Bank's *Doing Business 2011*. The Zambian government made significant progress in implementing its private sector development reform program (PSDRP). Cost of doing business was reduced by eliminating the minimum capital requirement, computerizing customs declarations and introducing an electronic case management system in courts. Although the economy will continue to rely on copper production and export, development in the domestic sectors such as construction is widely expected to play a more important role in the country's growth prospect. It is hard to disentangle the boom in non-exporting sectors from the benefits accrued in the export sectors, especially when the country is experiencing a terms of trade led boom. Nonetheless, the experience of Zambia shows that it is possible to achieve fast gains in Doing Business indicators by implementing economic reforms. Empirical study also suggests that improving from the worst quartile of business regulations to the best implies a 2.3 percentage point increase in annual growth.

Bhutan's Vision 2020 pictures that while the country's economic future will be driven by hydropower investments, the economy will also be well balanced and sufficiently diversified as a thriving high-value added agriculture sector, a clean manufacturing base, and a burgeoning hospitality industry start growing rapidly. These non-hydro power sectors are also expected to contribute in very significant ways towards generating productive employment for the growing numbers of youth entering the labor market. Improving the ease of doing business will support diversifying the resources of growth and help achieve these goals. In particular, resources need to be allocated to human capital investment, especially in tertiary education and vocational training, to create a skilled domestic labor force.

### III. POLICY DISCUSSIONS: PRESERVING MACROECONOMIC STABILITY AND SUSTAINING STRONG GROWTH

*A recalibration of policy settings is desirable to ensure that the forward momentum continues. The RMA should adjust monetary settings to help curb credit growth and step up its monitoring of financial institutions. The fiscal framework could be bolstered by the introduction of a spending ceiling that would increase the predictability of current expenditure over the near and medium term. The authorities' goals of diversifying the economic base as outlined in the new Economic Development Policy (EDP) are appropriate, but tax incentives should be carefully evaluated.*

#### A. Fiscal Policy

##### ***Background***

**11. Fiscal policy has been accommodative, which has contributed to the risk of overheating.** In 2009/10, the current balance declined to an estimated surplus of 4 percent of GDP and is anticipated to fall further to 2 percent of GDP in 2010/11. The overall balance is estimated at about 2½ percent of GDP in 2009/10 (compared with a deficit of 6 percent envisaged in the revised budget), but is also expected to drop sharply to *minus* 4.5 percent of GDP in 2010/11. The deterioration in the overall balance reflects: (i) a decline in non-tax revenue; (ii) sluggishness in tax revenue; (iii) higher current spending following a 35 percent hike in civil servant wages in January 2009 and 20 percent in early 2011; and (iv) an increase in capital spending.<sup>3,4</sup>

**12. The overall balance excluding the hydropower sector (mostly corporate income tax and profit transfers) is also projected to deteriorate in the near term** due to higher public investment and the decline in grants. In the medium and longer term, buoyancy of non-hydropower tax revenue (due to base broadening) and the planned decline in spending will bring down the non-hydropower deficit from 10 percent of GDP to 6 percent of GDP.

**13. Public debt has risen owing to new hydropower projects.** After declining by nearly 20 percentage points to 68 percent of GDP between 2005 and 2009, public debt has increased in 2009/10 due to the start of new hydropower projects. Public debt is expected to rise further to

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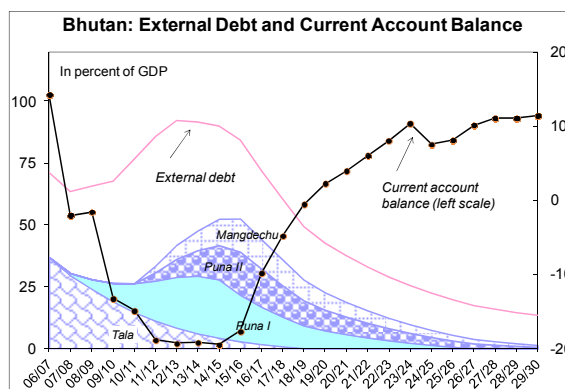
<sup>3</sup> Before 2009, nontax revenue included profit transfers and interest payments from the Tala project. When Tala becomes a corporation, its revenue contribution appears in corporate income tax instead. Since operating profits are still increasing, tax revenue has not offset the drop in nontax receipts.

<sup>4</sup> Data revisions have been sizable. Generally, they have been due to under-execution of capital spending.

81 percent of GDP by the end of the current fiscal year as a result of investments in the hydropower sector and rising current spending.

**14. The debt sustainability analysis (DSA) shows a moderate but still significant risk of distress as most indicative debt thresholds are temporarily breached.** Based on the DSA,

public debt is projected to exceed 110 percent of GDP in 2014/15. As in previous consultations, based on the LIC-DSA thresholds, these levels put Bhutan at risk of debt distress. However, in the staff's assessment, the risks are mitigated by the concentration of debt in commercially viable hydropower projects, which account for about half of total debt and benefit from India's strong energy demand. Other mitigating factors are important, including Bhutan's strong project implementation record and good governance, as well as a comfortable reserve position. Also, operational risks for specific projects (including those related to natural disasters) are significantly reduced as debt repayments are stopped if electricity cannot be delivered to India.



**Staff Advice**

**15. While fiscal policy has been generally prudent, the current fiscal settings pose challenges from both a near-term and a longer-term perspective.**

- *In the near term, fiscal policy should be tightened to address overheating.* This can be achieved by cutting non-priority current spending and saving any revenue overperformance. A fiscal tightening of about 2 percent of GDP (combined) in 2011 and 2012 would be desirable to help cool growth in aggregate demand. The proposed fiscal adjustment would encompass primarily current spending and could entail spending reallocation toward capital projects and other projects with high social returns, especially in case of grant shortfalls.<sup>5</sup> Tax administration should be improved to help reverse the sluggishness in tax revenue.
- *To bolster the fiscal framework, the Royal Government of Bhutan (RGB) could consider introducing a nominal ceiling on current spending (excluding interest).* The spending ceiling would increase the predictability of fiscal policy and at the same time reduce its procyclicality (e.g., the ceiling would link wage adjustments to inflation forecasts). Over time, this ceiling would also help create fiscal space, which could be used to: (i) finance

<sup>5</sup> Broadly, the proposed tightening would amount to a negative fiscal impulse over the next two years.

capital spending as aid inflows are projected to decline, and (ii) increase social spending should food and energy prices rise significantly from current levels.<sup>6</sup> The classification of spending would have to be monitored closely, as the proposed ceiling would not encompass capital spending, which is financed mostly with capital grants. The spending ceiling is based on debt sustainability considerations, and aims to maintain domestic financing contained. Escape clauses could address tail risks such as natural disasters, while the fiscal space would provide flexibility in the reallocation of spending. The proposed ceiling could take the form of an amendment to the existing fiscal rule that stipulates that current spending should be covered by domestic revenue.

- *In the medium term, domestic financing should remain limited to ensure sustainable debt dynamics, which requires both revenue and expenditure reforms.* The revenue base should be broadened to reduce revenue volatility and the dependence on the hydropower sector and external financing (see Box 2). Introducing the VAT and improving tax administration should remain key priorities. Implementation of multi-year rolling budgets, including by specifying three-year rolling ceilings on current spending consistent with medium term revenue, could better align spending plans with policy priorities and revenues.<sup>7</sup>

### *Authorities' views*

16. **While the authorities view fiscal policy as having been generally prudent, they concurred that at the moment fiscal settings pose challenges.** They underscored that fiscal measures will be aimed at ensuring that domestic revenue continues to finance current spending. They also noted that while the wage hikes will need to be financed with higher tax revenues, non-priority spending should be cut to help create fiscal space.

17. **Regarding medium term fiscal risks, the authorities underscored that there is a need to boost revenue to address the envisaged decline in foreign aid flows.** They were receptive to the staff's proposal to create a nominal current spending ceiling to help with the implementation of medium-term budgets, but added that any such measure would not address the need for more revenue over the medium term. The authorities also highlighted that revenue measures, including broadening the tax base and improving tax administration, must be implemented as tax incentives will likely have an impact on tax buoyancy going forward. Finally, the authorities broadly agreed with the medium- and long-term debt projections underlying the staff's DSA.

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<sup>6</sup> Creating fiscal space will also be important to address declining hydropower-related revenue (in relation to GDP) during the construction of new plants.

<sup>7</sup> Over time, the multi-year budget framework would also help reduce prospective fiscal revisions, as the revised budget would better reflect interim spending in relation to the overall multi-year envelope.

Nonetheless, they reiterated that the commercial viability of the projects, implementation capacity, and donor support, should allay any concerns about the rapid debt buildup.

## **B. Monetary and Financial Sector Policies**

### ***Background***

18. **Recently inflation has accelerated and become more volatile, reflecting price developments in India, but also accommodative domestic policies.** Monetary policy has been hampered by a weak transmission mechanism, as evidenced by persistent excess liquidity in the banking system, averaging 40 percent of reserve money in 2010. Short-term interest rates have declined since end-2009 to 2 percent in early 2011 (negative in real terms), and the spread with Indian money market rates is currently at *minus* 500 basis points (compared with a historical average of *minus* 250-300 basis points, see Figure 2).

19. **Financial stability indicators have remained stable.** With limited financial linkages to advanced economies, Bhutan's financial sector has weathered the global financial crisis largely unscathed. Private sector credit growth, however, has accelerated to nearly 45 percent yoy, driven by housing and construction sectors as well as personal loans.<sup>8</sup> Banks' CAR was 17 percent in September 2010. While remaining volatile due to seasonality, the gross NPL ratio of the financial system fell to 8.6 percent as of September 2010 from 15.6 percent at end-September 2009. While the decline in NPLs reflects rapid credit growth, it is also driven by loan recoveries. Loan provisions (as a percent of NPL) increased by 4 percentage points to 43.6 percent.

### ***Staff advice***

20. **Monetary conditions need to be tightened to lower excess liquidity and credit growth.** In the near term, the RMA should raise interest rates to help cool down aggregate demand. This would reduce imports and consequently the demand for Indian rupees. Over the medium term, the RMA should continue to take steps to improve liquidity management, including by promoting the development of the interbank market in conjunction with the Ministry of Finance.

21. **Rapid credit growth also warrants close monitoring.** The RMA should stand ready to adjust existing prudential regulations and norms, such as general provisioning, to help curb large exposures to specific sectors. These steps would bolster the capacity of Bhutan's financial system to withstand a potential deterioration in asset quality and strains in funding, especially for the new banks.

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<sup>8</sup> Private sector credit to GDP has nearly doubled since 2006, reaching 40 percent at end-June 2010.

22. **Financial sector supervision should be strengthened, especially in light of greater competition in the banking sector.** While the entry of new banks should improve financial intermediation, it may also increase credit risk and other systemic vulnerabilities stemming from rapid credit growth. The RMA should ensure that major commercial banks and other financial institutions conduct stress tests on a periodic (quarterly) basis and report their findings to the RMA.

### *Authorities' views*

23. **While the authorities agreed on the need to monitor credit growth closely, they did not see the need for higher interest rates at this juncture.** In addition, they noted that while higher interest rates would help keep *prospective* credit growth in check, they would reduce the RMA's profitability as the monetary authority would have to bear the interest cost of mopping up the excess liquidity. The authorities also added that further fiscal tightening would alleviate the need for monetary measures to address the high credit growth situation.

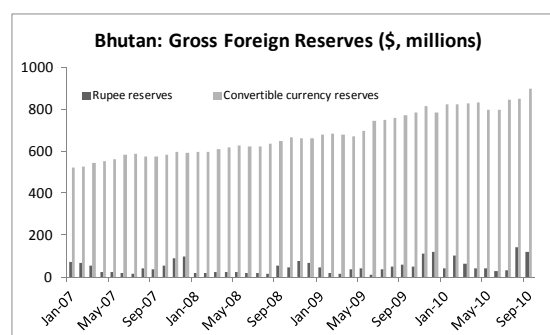
24. **The authorities highlighted that they are closely monitoring financial sector risks and that banks have been properly assessing risks, as evidenced by the level of NPLs.** They also noted that the high credit growth environment has been a feature of a low-income economy such as Bhutan. The authorities have agreed, however, that further engaging the banks by conducting periodic stress tests would help the strong credit culture and allow a better understanding of the underlying financial system risks.

## C. External Sector and Structural Issues

### *Background*

25. **The real effective exchange rate (REER) has been stable and close to its ten-year average (Figure 1).** There has been some recent appreciation of the REER in 2010 as inflation accelerated, but the REER is estimated to be only 5 percent above its historical average. Despite the somewhat sluggish performance of exports, debt service has remained stable in relation to exports of goods and services. While wages in the public sector have risen significantly due to hikes in the last two years, anecdotal evidence indicates that wage inflation in the private sector (formal and informal) remains contained.

26. **Despite large trade deficits arising from hydropower-related imports, aid inflows have led to balance of payments surpluses over the past 5 years.** The current account deficit is increasingly due to the construction of the Puna hydropower project (Phase I). Pressure on the overall balance of



payments, however, is expected to remain contained as associated loan disbursements from India are also projected to increase. The reserve position is comfortable, with import coverage at about 10½ months. The convertible currency reserves (currently about 90 percent of the total) have been rising steadily, in part due to strong donor inflows. Though rising sharply in 2010, rupee reserves have remained volatile and cover only about 2¼ months of rupee denominated imports.

27. **Government policies envisage economic diversification over the medium term.** While Bhutan has enjoyed robust growth driven by the hydropower sector, the new EDP launched in early 2010 envisages diversification of the economy. The EDP's goals encompass rapid growth in merchandise exports and a boost to the service sector through a combination of various tax incentives. The initiatives in the EDP also include "green" sectors, consistent with Bhutan's emphasis on sustainable development.

### *Staff Advice*

28. **Being close to its historical average, the ngultrum remains broadly in line with its medium-term equilibrium level and its parity with the Indian rupee is appropriate.** Given Bhutan's strong ties with India, the peg to the rupee is deemed appropriate and has contributed to trade integration between the two countries. Nevertheless, fiscal and monetary tightening would help contain appreciation pressures that have appeared recently. Over the medium term, productivity improvements can help offset the impact of any real exchange rate appreciation.

29. **The large number of hydropower projects in the pipeline and volatile hydropower exports to India will likely contribute to volatility in rupee reserves, requiring a more active reserve management.** The authorities could consider revisiting the import coverage floor for convertible currencies to reduce the costs of drawing on the rupee credit lines. While the rupee credit lines play a useful role in addressing short-term mismatches in rupee inflows and outflows, they have become relatively costly given the low yield on convertible currencies. Over the medium term, export diversification beyond the hydropower sector (e.g., tourism), as highlighted in the EDP, would also help. The authorities should also carefully assess the cost of tax incentives provided under the EDP. In this regard, the authorities could consider reforms that could lower the cost of doing business as a more effective way to develop new sectors (see Box 3).

### *Authorities' views*

30. **The authorities agreed with the staff's assessment of the exchange rate level.** They also agreed that tightening aggregate demand policies, including by containing credit growth would help contain balance of payment pressures and the demand for Indian rupees. They underscored that the level of convertible currencies reserves is important for the credibility of the peg, but recognized that more flexibility in reserve management can be obtained by lowering the convertible currencies import coverage floor to prudent levels, based on balance of payments



stress tests. They stressed that while they have not experienced signs of Dutch disease, they monitor the level of the real exchange rate closely and are actively taking measures to improve competitiveness by providing incentives for private sector development.

31. **The authorities reiterated that existing exchange rate restrictions on current account transactions were needed since Bhutan's international reserves have been built largely on aid flows.** They recognized that such restrictions could be eased gradually as exports strengthen.

#### IV. STAFF APPRAISAL

32. **Bhutan's growth has remained robust and its medium-term prospects are favorable, but implementing structural reforms is critical to ensuring sustainable growth.** The economy is expected to grow at 8 percent this year and to continue growing strongly over the medium term, underpinned by the hydropower sector (including associated construction), manufacturing, and services. Risks to growth seem broadly balanced but medium term prospects depend on addressing overheating and implementing critical reforms. Inflation is expected to remain high, reflecting price developments in India.

33. **With rapid growth and elevated inflation, monetary and fiscal policies should be tightened to reduce the risk of overheating.** The near-term fiscal objectives are likely to be met, but saving any revenue overperformance and cutting non-priority spending would help contain aggregate demand. Monetary tightening by raising interest rates would also help cool credit growth, and prevent balance of payment pressures.

34. **In light of rapid credit growth, financial sector supervision should be strengthened.** While the financial sector is benefiting from rapid growth so far, enhancing the monitoring of financial institutions is important to better assess system wide risks that could be masked by high credit growth and spurred by greater competition in the banking system.

35. **Fiscal policy should be tightened in the near term to address overheating, and spending and revenue reforms are needed to bolster the fiscal framework.** Over the medium term, the sluggishness in tax revenues should be reversed and fiscal space needs to be created to address declining foreign aid inflows and finance much-needed public infrastructure. Also, establishing a nominal ceiling on current spending would help create fiscal space over time and would make fiscal policy more countercyclical. The revenue base should be broadened to increase tax buoyancy. Multi-year rolling budgets should also be implemented to better align spending plans with fiscal resources and policy priorities.

36. **Bhutan's exchange rate peg against the India rupee has served the country well by helping deliver macroeconomic stability.** The real effective ngultrum has appreciated only modestly and has been close to its long-term average. There are no obvious signs of Dutch

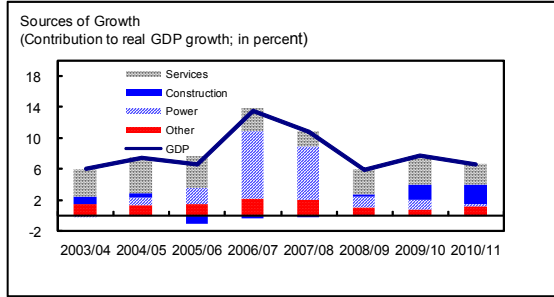
disease so far and the authorities are taking measures to ensure that competitiveness is sustained over the medium term mainly by promoting the diversification of the economy. Bhutan will continue to enjoy robust growth driven by the hydropower sector, but job creation in that sector is unlikely to be sufficient to absorb Bhutan's prospective labor force. The comprehensive strategy embedded in the EDP identifies activities that have strong job-generating potential and promotes foreign direct investment and private sector development. Moreover, the thrust of the EDP is in harmony with Bhutan's sustainable development strategy and its focus on GNH.

37. **Bhutan maintains restrictions under Article XIV.** A careful and gradual easing of these exchange restrictions would facilitate Bhutan's acceptance of the obligations under Article VIII of the IMF's Articles of Agreement with minimal impact on the balance of payments. Bhutan also maintains an exchange restriction subject to Fund approval under Article VIII, Section 2(a). Staff does not recommend approval of this restriction as the authorities have not provided a timeframe for its removal.

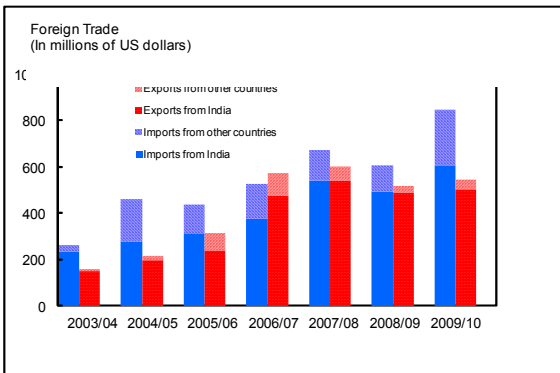
38. It is recommended that the next Article IV consultation take place on the 24-month cycle in accordance with the *Decision on Article IV Consultation Cycles* (Decision No. 14747-(10/96) (9/28/2010)).

Figure 1. Bhutan: Real and External Sector Developments

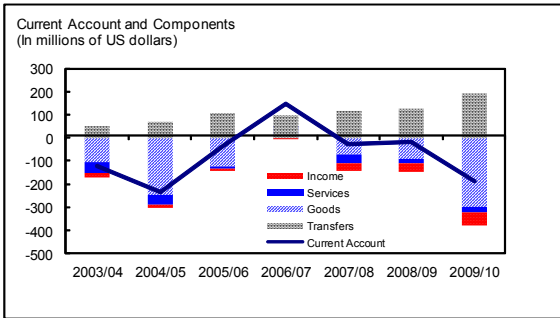
After the commission of the Tala hydropower project in 2007, growth has moderated though remains strong.



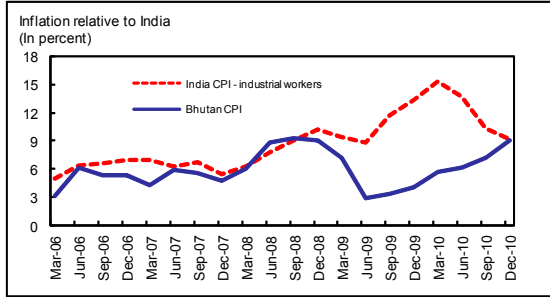
...which remains Bhutan's most important trading partner.



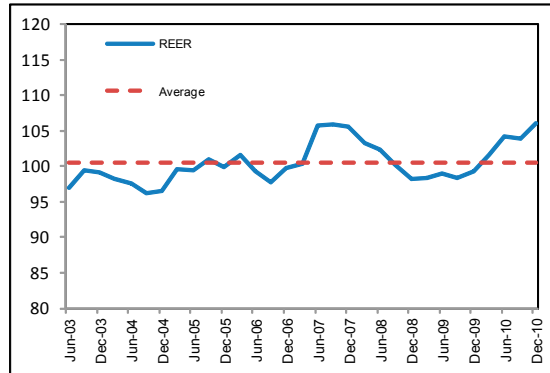
The current account swung into deficit as debt service of the Tala hydropower project began and the construction of the Puna I project started.



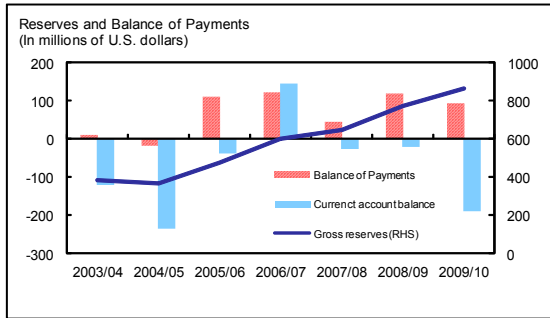
Inflation has risen, following price developments in India,...



The real exchange rate has appreciated in 2010, but is broadly in line with the historical average.



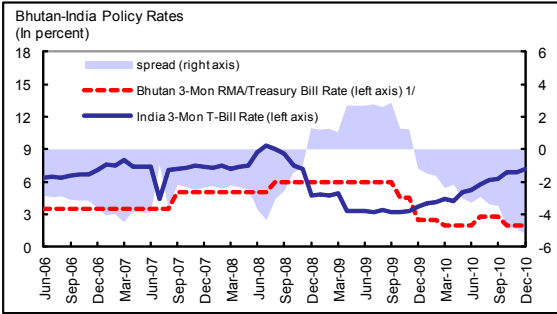
However, with adequate foreign inflows, overall reserves rose.



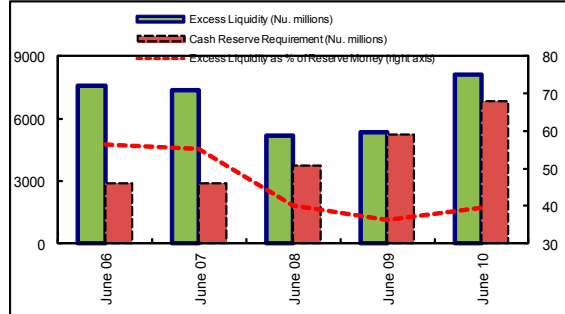
Sources: IMF, International Financial Statistics; Royal Monetary Authority of Bhutan; and IMF staff calculations.

Figure 2. Bhutan: Monetary, Financial and Fiscal Developments

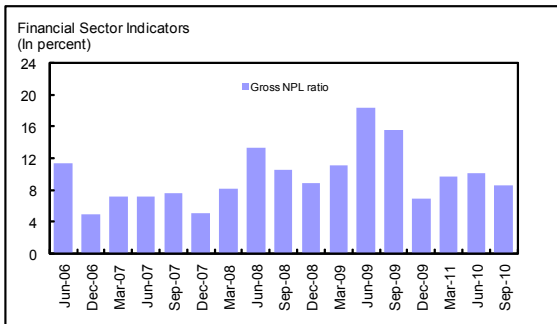
The policy rate spread with India has turned negative...



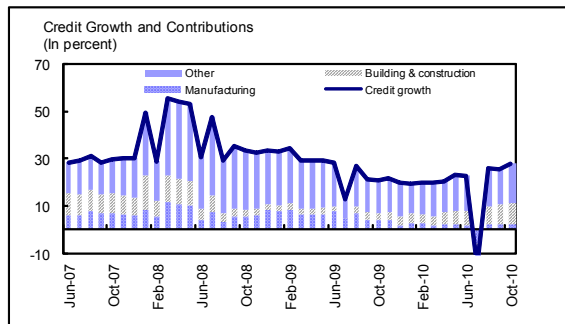
...and while excess liquidity has come down, it has remained large.



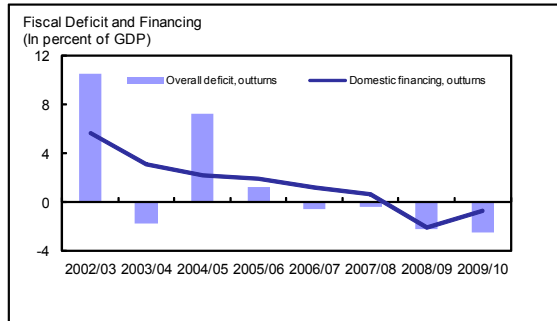
Although the NPL ratio has improved ...



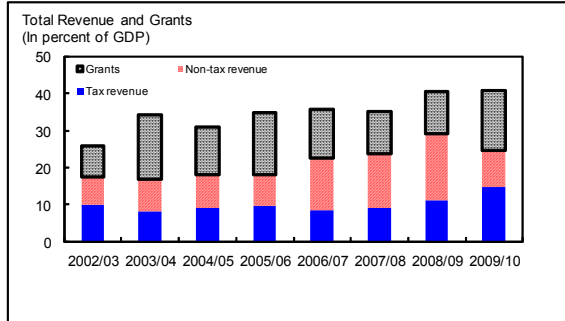
...credit growth has been strong, particularly in construction.



Fiscal performance has deteriorated somewhat since 2008/09...



...reflecting sluggish non-tax revenue and volatile foreign grants.



Sources: IMF, International Financial Statistics; Royal Monetary Authority of Bhutan; and IMF staff calculations.

1/ RMA bill was replaced by treasury bill in December 2009.

**Table 1. Bhutan: Selected Economic and Financial Indicators, 2007/08–2011/12 1/**

Nominal GDP (2009): US\$1,265 million  
 Population (2009): 0.697 million  
 GDP per capita (2009): US\$1,815  
 Quota: SDR 6.3 million

	2007/08	2008/09	2009/10 Est.	2010/11 Proj.	2011/12 Proj.
<b>Real sector</b>					
Real GDP at market prices (percent change)	10.8	5.7	7.5	8.2	8.3
Consumer prices (percent change, period average)	6.3	7.1	4.8	6.8	5.8
Nominal GDP (at market prices; billions of ngultrum)	52.1	58.0	66.2	76.4	87.8
<b>General government</b> (In percent of GDP)					
Total revenue and grants	35.1	35.6	41.0	39.5	30.9
Tax revenue	9.0	9.9	13.6	13.5	12.9
Non-tax revenue	14.7	14.4	10.1	8.7	7.9
Foreign grants	11.4	11.3	17.3	17.3	10.1
Total expenditure and net lending	34.7	33.3	38.4	44.1	37.7
Current expenditure	18.7	19.1	19.5	20.1	19.4
Capital expenditure	19.2	16.9	19.5	25.2	19.6
Current balance (excluding grants)	5.0	5.2	4.1	2.1	1.4
Overall balance	0.4	2.3	2.5	-4.6	-6.8
Public sector debt 2/	66.2	67.7	70.9	81.3	95.3
<b>Monetary sector 3/</b> (Percent change, unless otherwise indicated)					
Broad money	2.3	24.6	30.1	26.7	...
Credit to private sector	39.7	29.3	41.1	45.5	...
Interest rates (end of period, in percent)					
Deposits (less than 1 year)	4.8	4.8	5.0	5.0	...
Lending	10-16	10-16	10-16	10-16	...
<b>External sector</b> (In millions of dollars, unless otherwise indicated)					
Current account balance	-27	-20	-188	-224	-313
(In percent of GDP)	-2.1	-1.6	-13.2	-14.9	-18.8
Trade balance	-72	-90	-299	-347	-347
Exports (goods)	599	516	544	549	583
(percent change)	4.4	-13.8	5.5	0.8	6.3
Imports (goods)	671	607	843	896	930
(percent change)	27.4	-9.6	39.0	6.3	3.9
Grants (current transfer)	161	151	270	291	188
Capital account balance	140	106	150	243	335
Loans (net)	25	88	47	136	160
Overall balance	45	119	94	19	22
(In percent of GDP)	3.5	9.8	6.7	1.3	1.3
Gross official reserves	646	773	868	887	909
(In months of goods and services imports)	11.4	9.9	10.5	10.3	9.6
External debt (in percent of GDP)	63.5	65.6	67.7	76.5	85.8
<i>Of which:</i> power sector debt	38.9	35.5	34.7	37.4	45.9
Debt service ratio (in percent of G&S exports)	14.2	13.4	14.3	13.9	14.2
<b>Memorandum items:</b>					
Electricity exports (in percent of total goods exports)	41.9	42.3	39.2	36.1	31.0
Unemployment rate (in percent) 4/	3.7	4.0	3.3	...	...

Sources: Data provided by the Bhutanese authorities; and Fund staff estimates and projections.

1/ Fiscal year begins July 1.

2/ Public and publicly-guaranteed debt, including loans for hydropower projects and the purchase of one aircraft.

3/ End-November 2010 data for 2010/11.

4/ On a calendar year basis, e.g., the entry for 2007/08 is for 2007.

**Table 2. Bhutan: Government Budget Summary, 2007/08–2011/12**

	2007/08	2008/09	2009/10 Est.	2010/11 Proj.	2011/12 Proj.
(In millions of ngultrum)					
Revenue and grants	18,282	20,624	27,107	30,173	27,132
Domestic revenue	12,346	14,049	15,638	16,963	18,278
Tax revenue	4,666	5,725	8,975	10,282	11,337
Nontax revenue	7,681	8,324	6,663	6,680	6,941
Foreign grants	5,935	6,575	11,469	13,211	8,854
From India	4,671	4,395	7,306	9,082	7,129
Other	1,264	2,180	4,163	4,129	1,725
Expenditure and net lending	18,065	19,310	25,431	33,683	33,139
Current expenditure	9,726	11,061	12,903	15,342	17,045
Wages and salaries	3,525	4,560	5,599	6,247	6,904
Goods and services	3,928	4,160	4,919	6,288	6,965
Subsidies and transfers	554	607	641	740	850
Interest	1,719	1,734	1,743	2,067	2,326
Capital expenditure	9,993	9,829	12,929	19,217	17,244
Net lending	-1,654	-1,580	-400	-876	-1,150
Current balance (excl. grants)	2,620	2,988	2,736	1,621	1,232
Overall balance	216	1,314	1,676	-3,509	-6,007
Foreign financing	-1,319	-1,219	-483	785	1,039
Disbursement	758	833	2,252	3,015	3,658
Amortization	2,077	2,052	2,736	2,229	2,619
Domestic financing	1,103	-95	-1,193	2,724	4,968
(In percent of GDP, unless otherwise indicated)					
Revenue and grants	35.1	35.6	41.0	39.5	30.9
Domestic revenue	23.7	24.2	23.6	22.2	20.8
Tax revenue	9.0	9.9	13.6	13.5	12.9
Nontax revenue	14.7	14.4	10.1	8.7	7.9
Foreign grants	11.4	11.3	17.3	17.3	10.1
From India	9.0	7.6	11.0	11.9	8.1
Other	2.4	3.8	6.3	5.4	2.0
Expenditure and net lending	34.7	33.3	38.4	44.1	37.7
Current expenditure	18.7	19.1	19.5	20.1	19.4
Capital expenditure	19.2	16.9	19.5	25.2	19.6
Net lending	-3.2	-2.7	-0.6	-1.1	-1.3
Current balance (excl. grants)	5.0	5.2	4.1	2.1	1.4
Overall balance	0.4	2.3	2.5	-4.6	-6.8
Foreign financing	-2.5	-2.1	-0.7	1.0	1.2
Disbursement	1.5	1.4	3.4	3.9	4.2
Amortization	4.0	3.5	4.1	2.9	3.0
Domestic financing	2.1	-0.2	-1.8	3.6	5.7

Sources: Data provided by the Royal Government of Bhutan; and Fund staff estimates and projections.

Table 3. Bhutan: Balance of Payments, 2007/08–2014/2015

	2007/08	2008/09	2009/10 Prov.	2010/11	2011/12	2012/13 Proj.	2013/14	2014/15
	(In millions of U.S. dollars)							
Current account	-27	-20	-188	-228	-316	-361	-404	-456
Trade balance	-72	-90	-299	-347	-347	-398	-461	-535
Exports, f.o.b.	599	516	544	549	583	623	665	721
Of which: electricity	251	218	213	198	181	174	191	192
Imports, c.i.f.	-671	-607	-843	-896	-930	-1,022	-1,126	-1,256
Services	-39	-19	-22	-22	-16	-12	-8	-4
Credit	55	57	69	74	84	97	112	130
Debit	-93	-75	-90	-96	-100	-109	-120	-134
Income	-32	-37	-57	-60	-66	-76	-78	-74
Credit	35	21	16	17	18	18	20	21
Debit	-68	-58	-73	-77	-84	-94	-97	-95
Of which: interest payments 1/	-43	-35	-43	-43	-45	-46	-46	-48
Current transfers	117	126	190	201	113	126	142	158
Credit	168	162	223	236	152	170	191	212
Of which: grants 2/	161	151	270	286	184	205	231	257
Debit	-51	-36	-34	-36	-39	-44	-49	-55
Capital and financial account	140	106	150	243	335	446	466	627
Capital transfer 3/	16	30	80	87	135	179	228	349
Foreign direct investment	30	15	11	21	41	66	71	73
Portfolio investment	0	0	0	0	0	0	0	0
Loans (net)	25	88	47	136	160	202	166	205
Disbursements	36	129	91	180	210	253	235	279
Amortization 1/	11	41	44	44	50	51	68	74
Other flows 4/	69	-26	12	0	0	0	0	0
Errors and omissions	-68	33	132	0	0	0	0	0
Overall balance	45	119	94	14	19	86	62	171
Memorandum items:	(In percent of GDP, unless otherwise indicated)							
Current account balance	-2.1	-1.6	-13.2	-15.2	-19.0	-19.4	-19.3	-19.6
Trade balance	-5.6	-7.5	-21.1	-23.1	-20.9	-21.5	-22.0	-23.1
Merchandise exports (percent change)	4.4	-13.8	5.5	0.8	6.3	6.9	6.7	8.4
Merchandise imports (percent change)	27.4	-9.6	39.0	6.3	3.9	9.8	10.2	11.6
External debt	63.5	65.6	67.7	76.5	85.8	92.1	91.5	90.1
(In millions of U.S. dollars)	819	796	961	1,152	1,428	1,709	1,913	2,089
(In percent of exports of goods and services)	125.4	139.1	156.7	185.2	214.0	237.2	246.2	245.5
Debt service (in percent of exports of goods and services)	14.2	13.4	14.3	13.9	14.2	13.5	14.7	14.3
(In millions of U.S. dollars)	93	77	88	87	94	97	114	122
Gross official reserves (in millions of U.S. dollars)	646	773	868	883	902	987	1,048	1,219
(In months of imports of goods)	12.8	11.0	11.6	11.4	10.6	10.5	10.0	10.5
(In months of imports of goods and services)	11.4	9.9	10.5	10.3	9.6	9.5	9.0	9.5
Ngultrum per U.S. dollars (fiscal year average)	40.4	47.8	46.7	...	...	...	...	...
Nominal GDP (in millions of U.S. dollars)	1,291	1,214	1,419	1,506	1,665	1,854	2,091	2,320

Sources: Data provided by the Bhutanese authorities; and Fund staff estimates and projections.

1/ Debt service for Tala starts in 2007/08.

2/ Including budgetary and off-budgetary grants.

3/ Including grants for Tala, Puna I, Puna II and Mangdechu hydropower projects.

4/ Including trade credit, rupee credit lines, short-term capital flows and IMF SDR allocation in 2009.

Table 4. Bhutan: Monetary Survey, 2006/07–2010/11

	2006/07	2007/08	2008/09	2009/10	2010/11 1/
Monetary survey	(In millions of ngultrum)				
Net foreign assets	24,459	25,923	33,074	35,236	41,994
Indian rupee	795	-835	-3,259	-3,071	2,794
Other	23,664	26,757	36,333	38,307	39,200
Net domestic assets	750	-142	-961	6,542	12,868
Net claims on government 2/	-2,010	-2,265	-4,204	-4,047	-431
Claims on nongovernment	12,073	15,627	19,937	27,184	28,751
Public enterprises	1,243	1,168	1,111	612	613
Joint enterprises	228	78	355	51	...
Non bank financial institutions	718	568	610	1,325	...
Private sector	9,884	13,812	17,861	25,196	28,138
Other items (net) 3/	-9,313	-13,504	-16,693	-16,594	-15,452
Broad money	25,209	25,781	32,114	41,779	54,862
Narrow money	13,542	14,392	18,374	22,538	27,706
Currency	3,166	3,641	4,541	5,387	5,587
Demand deposits	10,376	10,752	13,833	17,151	22,119
Quasi-money 4/	11,666	11,388	13,740	19,241	27,156
Royal Monetary Authority					
Net foreign assets	20,988	24,571	31,318	32,777	41,770
Indian rupee	136	-1,609	-3,799	-4,363	4,388
Other	20,852	26,180	35,116	37,140	37,382
Net domestic assets	-7,669	-11,700	-16,621	-12,202	-13,637
Net claims on government	-2,010	-2,265	-4,204	-4,047	...
Claims	0	0	0	0	...
Minus: deposits	2,010	2,265	4,204	4,047	...
Claims on deposit money banks	22	147	44	633	...
Claims on private sector	12	15	17	18	...
Minus: RMA bills	200	2,000	2,000	21	...
Other items (net)	-5,492	-7,597	-10,478	-8,785	...
Reserve money	13,319	12,871	14,697	20,575	28,133
Memorandum items:					
	(Change in percent of initial stock of broad)				
Broad money	8.6	2.3	24.6	30.1	26.7
Net foreign assets	10.1	5.8	27.7	6.7	3.9
Net domestic assets	-1.5	-3.5	-3.2	23.4	22.8
Net claims on government	-5.9	-1.0	-7.5	0.5	7.9
Claims on private sector	11.0	15.6	15.7	22.8	20.3
Other items (net)	-7.6	-16.6	-12.4	0.3	-1.8
	(Change in percent of initial stock of reserve money)				
Reserve money	-1.2	-3.4	14.2	40.0	23.6
Net foreign assets	17.0	26.9	52.4	9.9	24.9
Net domestic assets	-18.1	-30.3	-38.2	30.1	-1.3
Money multiplier	1.9	2.0	2.2	2.0	2.0
Velocity of money	1.8	2.0	1.8	1.6	1.4
Broad money/GDP	0.56	0.49	0.55	0.63	0.72
Broad money growth (12-month percent change)	8.6	2.3	24.6	30.1	26.7
Reserve money growth (12-month percent change)	-1.2	-3.4	14.2	40.0	23.6
Credit to private sector (12-month percent change)	34.6	39.7	29.3	41.1	45.5

Sources: Data provided by the Bhutanese authorities; and Fund staff estimates.

1/ Provisional data as of end-November 2010.

2/ Includes deposits of some public enterprises and off-budgetary entities; as such, data differ from bank financing data reported in the fiscal accounts.

3/ Includes foreign exchange valuation adjustments and capital accounts.

4/ Includes time and foreign currency deposits.



Table 5. Bhutan: Medium-Term Macroeconomic Framework, 2007/08–2014/15

	2007/08	Tenth Plan Period					2013/14	2014/15
		2008/09	2009/10 Est.	2010/11	2011/12	2012/13 Proj.		
<b>Real sector (percent change)</b>								
Real GDP at market prices	10.8	5.7	7.5	8.2	8.3	8.2	9.7	8.6
Consumer prices (period average)	6.3	7.1	4.8	6.8	5.8	4.8	4.3	4.0
<b>Fiscal sector (in percent of GDP)</b>								
Revenue and grants	35.1	35.6	41.0	39.5	30.9	30.4	29.3	29.2
Domestic revenue 1/	23.7	24.2	23.6	22.2	20.8	20.3	19.3	19.1
<i>Of which</i> : tax revenue	9.0	9.9	13.6	13.5	12.9	12.8	12.3	12.3
Grants	11.4	11.3	17.3	17.3	10.1	10.1	10.1	10.1
Expenditure and net lending	34.7	33.3	38.4	44.1	37.7	35.8	33.7	33.2
Current expenditure	18.7	19.1	19.5	20.1	19.4	18.6	17.5	16.8
<i>Of which</i> : interest 2/	3.3	3.0	2.6	2.7	2.6	2.6	2.4	2.5
Capital expenditure	19.2	16.9	19.5	25.2	19.6	18.7	17.8	17.8
Net lending 3/	-3.2	-2.7	-0.6	-1.1	-1.3	-1.6	-1.6	-1.4
Current balance (excl. grants)	5.0	5.2	4.1	2.1	1.4	1.7	1.8	2.3
Overall balance	0.4	2.3	2.5	-4.6	-6.8	-5.3	-4.3	-4.0
External financing 3/	-2.5	-2.1	-0.7	1.0	1.2	2.1	-1.9	-2.7
Domestic financing	2.1	-0.2	-1.8	3.6	5.7	3.2	6.2	6.7
<b>External sector (in millions of U.S. dollars)</b>								
Current account balance (including grants)	-27	-20	-188	-224	-313	-357	-400	-451
(In percent of GDP)	-2.1	-1.6	-13.2	-14.9	-18.8	-19.3	-19.1	-19.5
Trade balance	-72	-90	-299	-347	-347	-398	-461	-535
Exports	599	516	544	549	583	623	665	721
Imports	671	607	843	896	930	1022	1126	1256
Services, income, and transfers (net)	46	71	111	123	34	41	60	84
<i>Of which</i> : grants	161	151	270	291	188	209	236	261
Capital and financial account balance 4/	140	106	150	243	335	446	466	627
<i>Of which</i> : foreign direct investment	30	15	11	21	41	66	71	73
<i>Of which</i> : loans (net)	25	88	47	136	160	202	166	205
Overall balance	45	119	94	19	22	89	66	176
(In percent of GDP)	3.5	9.8	6.7	1.3	1.3	4.8	3.1	7.6
Gross foreign reserves (in millions of U.S. dollars)	646	773	868	887	909	997	1062	1238
(In months of goods and services imports)	11.4	9.9	10.5	10.3	9.6	9.6	9.2	9.7
External debt (public and private, in percent of GDP)	63.5	65.6	67.7	76.5	85.8	92.1	91.5	90.1
<i>Of which</i> : Power sector debt	38.9	35.5	34.7	37.4	45.9	54.0	58.2	61.0
External debt service								
(In percent of exports of goods and services)	14.2	13.4	14.3	13.9	14.2	13.5	14.7	14.3

Sources: Data provided by the Bhutanese authorities; and Fund staff estimates and projections.

1/ Including payment receipts from Tala for its interest payment to the government of India.

2/ Including Tala interest payment.

3/ Including Tala's amortization payment.

4/ Including grant inflows for hydropower projects.

Table 6. Bhutan: Millennium Development Goals 1/

	1990	1995	2000	2005	2008
Eradicate extreme poverty and hunger 2/ Poverty headcount ratio at national poverty line (% of population)	(2015 target = halve 1990 \$1 a day poverty and malnutrition rates)				23.2 (2007)
				31.7 (2003)	
Achieve universal primary education 3/ Net primary enrollment ratio (in percent of relevant age group)	(2015 target = net enrollment to 100)				84.2
	...	...	58.7	74.2	
Percentage of cohort reaching grade 5 (in percent)	...	...	91.0	93.2	96.1
Youth literacy rate (in percent of ages 15–24)	...	...	...	74.4	...
Promote gender equality 4/ Ratio of girls to boys in primary and secondary education (in percent)	(2005 target = education rate to 100)				97.8
	...	...	86.0	93.9	
Ratio of young literate females to males (in percent of ages 15–24)	...	...	...	84.9	...
Share of women employed in the nonagricultural sector (in percent)	...	...	...	16.6	...
Proportion of seats held by women in national parliament (in percent)	2.0	...	2.0	8.7	8.5
Reduce child mortality 5/ Under 5 mortality rate (per 1,000)	(2015 target = reduce 1990 under 5 mortality by two thirds)				81.2
	147.9	125.2	106.0	89.8	
Infant mortality rate (per 1,000 live births)	91.3	78.8	68.0	58.8	53.9
Immunization, measles (in percent of children under 12 months)	93.0	85.0	76.0	93.0	...
Improved maternal health 6/ Maternal mortality ratio (modeled estimate, per 100,000 live births)	(2015 target = reduce 1990 maternal mortality by three fourths)				...
	...	...	...	440.0	
Births attended by skilled health staff (in percent of total)	...	...	23.7	...	71.4 (2007)
Combat HIV/AIDS, malaria, and other diseases 7/ Prevalence of HIV, female (in percent of ages 15–24)	(2015 target = halt, and begin to reverse, AIDS, etc.)				...
	...	...	...	...	
Contraceptive prevalence rate (in percent of women ages 15–49)	...	...	30.7	...	35.4 (2007)
Number of children orphaned by HIV/AIDS	...	...	...	...	...
Incidence of tuberculosis (per 100,000 people)	307.5	307.5	253.2	187.5	164.6
Tuberculosis cases detected under DOTS (in percent)	...	...	...	...	...
Ensure environmental sustainability 8/ Forest area (in percent of total land area)	(2015 target = various, see notes)				83.8 (2007)
	64.6	77.1	78.4	83.2	
Nationally protected areas (in percent of total land area)	...	...	...	...	...
GDP per unit of energy use (PPP\$ per kg. oil equivalent)	...	...	...	...	...
CO2 emissions (metric tons per capita)	0.2	0.5	0.7	0.6	...
Access to an improved water source (in percent of population)	...	...	81.0	...	...
Access to improved sanitation (in percent of population)	...	...	52.0	...	...
Access to secure tenure (in percent of population)	...	...	...	...	...
Develop a global partnership for development 9/ Youth unemployment rate (in percent of total labor force ages 15–24)	(2015 target = various, see notes)				...
	...	...	...	6.3	...
Fixed line and mobile telephones (per 100 people)	0.3	1.0	2.5	10.6	40.5
Personal computers (per 100 people)	...	...	0.9	2.0	2.5 (2007)
General indicators					
Population (millions)	0.5	0.5	0.6	0.6	0.7
Gross national income (in million U.S. dollars)	297.7	291.6	418.7	754.5	1,300.8
GNI per capita (in U.S. dollars)	560.0	560.0	730.0	1,190.0	1,900.0
Adult literacy rate (in percent of people ages 15 and over)	...	...	...	52.8	...
Total fertility rate (births per woman)	5.9	4.8	3.8	3.0	2.6
Life expectancy at birth (in years)	52.6	56.7	61.4	64.9	66.1
Aid (in percent of GNI)	...	...	...	...	...
External debt (in percent of GNI)	28.1	36.3	48.7	85.8	49.7
Investment (in percent of GDP)	32.4	48.0	48.2	56.2	46.6
Trade (in percent of GDP)	61.3	85.1	81.8	94.8	107.0

Source: *World Development Indicators database*.

1/ In some cases the data are for earlier or later years than those stated.

2/ Goal 1 targets: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day. Halve, between 1990 and 2015, the proportion of people who suffer

3/ Goal 2 targets: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

4/ Goal 3 targets: Eliminate gender disparity in primary and secondary education preferably by 2005 and to all levels of education no later than 2015.

5/ Goal 4 targets: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate.

6/ Goal 5 targets: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio.

7/ Goal 6 targets: Halt by 2015, and begin to reverse, the spread of HIV/AIDS. Halt by 2015, and begin to reverse, the incidence of malaria and other major diseases.

8/ Goal 7 targets: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources. Halve, by 2015, the proportion of people without sustainable access to safe drinking water. By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers.

9/ Goal 8 targets: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system. Address the Special Needs of the Least Developed Countries. Address the Special Needs of landlocked countries and small island developing states. Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term. In cooperation with developing countries, develop and implement strategies for decent and productive work for youth. In cooperation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries. In cooperation with the private sector, make available the benefits of new technologies, especially information and communications.

INTERNATIONAL MONETARY FUND

BHUTAN

**Staff Report for the 2011 Article IV Consultation**

**Informational Annex**

Prepared by the Staff Representatives for the 2011 Article IV Consultation with Bhutan

May 13, 2011

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## I. BHUTAN—FUND RELATIONS

(As of February 28, 2011)

**I. Membership Status:** Joined 9/28/1981; Article XIV

<b>II. General Resources Account:</b>	<b>SDR Million</b>	<b>% Quota</b>
Quota	6.30	100.00
Fund holdings of currency (Exchange Rate)	5.28	83.81
Reserve Tranche Position	1.02	16.20

<b>III. SDR Department:</b>	<b>SDR Million</b>	<b>% Allocation</b>
Net cumulative allocation	5.99	100.00
Holdings	6.42	107.15

**IV. Outstanding Purchases and Loans:** None

**V. Latest Financial Arrangements:** None

**VI. Projected Obligations to Fund:** None

**VII. Implementation of HIPC Initiative:** Not applicable.

**VIII. Implementation of Multilateral Debt Relief Initiative (MDRI):** Not applicable.

### **IX. Exchange System**

Since its introduction in 1974, the ngultrum has been pegged to the Indian rupee at par. Bhutan continues to avail of transitional arrangements under provisions of Article XIV, Section 2. Bhutan also maintains exchange restrictions subject to Fund approval under Article VIII, Section 2(a).

### **X. Article IV Consultation**

Bhutan is on a 24-month consultation cycle. The 2009 Article IV consultation was concluded by the Executive Board on December 15, 2009.

### **XI. Technical Assistance**

#### **Fiscal (FAD):**

1982, 1983	-	Tax policy, budgeting, and accounting
1984	-	Tax legislation

- 1984–86, 1988–89 - Technical experts assigned as General Fiscal Advisor to the Ministry of Finance
- 1987, 1989 - Tax system and public enterprises
- 1992, 2003 - Income taxation
- 2003 - Workshop on tax auditing and revenue forecast
- 2004 - Accounting (with MFD)
- 2009 - Indirect tax system, scope for VAT introduction
- 2009 - Sales tax/VAT

#### **Legal (LEG):**

- 1982–84 - Tax legislation
- 2004, 2005 - Central banking and financial services legislation and foreign exchange regulations (with MFD)
- 2011 - TA in Payments Law

#### **Monetary and Financial (CBD/MAE/MFD/MCM):**

- 1983 - Set-up the Royal Monetary Authority (RMA)
- 1980–92 - Technical experts assigned as General Advisors to RMA
- 1989 - Financial system review
- 1991 - Financial sector legislation/development of supervisory capabilities
- Technical experts assigned as Advisor for Bank Supervision
- 1992 - Issuance of government securities
- 1993–96 - Implementation of issuance of government securities
- 2003 - Monetary and exchange operations / financial systems
- 2004 - Accounting
- 2004, 2005 - Central banking and financial services legislation and foreign exchange regulations
- 2005, 2007 - Risk based internal audit policies and practices
- 2006, 2007 - Implementation of accounting reforms
- Debt management and financial markets development
- 2007 - Follow-up on excess liquidity issues
- Follow-up on reserve management
- 2008 - Foreign exchange issues

#### **Statistics (STA):**

- 1988 - Trade statistics
- 1990 - Statistics database
- 2004 - Multisector statistics/GDDS mission
- 2005 - Balance of payments statistics
- 2009 - Balance of payments statistics
- 2010 - GDDS: Metadata Development

2011 - Balance of payments statistics

**XII. Resident Representative/Advisor:** None.

## II: BHUTAN—RELATIONS WITH THE WORLD BANK GROUP<sup>1</sup>

(As of April 10, 2011)

### World Bank Group’s Country Partnership Strategy

**The National Assembly finalized the Tenth Five-Year Plan (10FYP) (2008/09–2012/13) in January 2009.** This is also the RGoB’s Poverty Reduction Strategy Paper (PRSP). The strategic priorities for the 10FYP are: (i) vitalizing industry; (ii) strengthening national spatial planning; (iii) synergizing rural-urban development; (iv) expanding strategic infrastructure; (v) investing in human capital; and (vi) fostering an enabling environment through good governance.

**The new Country Partnership Strategy (CPS) covering FY11–14 aligns closely with the 10FYP / PRSP.** The International Development Association (IDA) and the International Finance Corporation (IFC) have jointly prepared the CPS. It emphasizes selectivity, and envisages World Bank Group (WBG) support for development in Bhutan based on two broad areas of engagement: (i) economic diversification, job creation, and financial inclusion — with a view to increased growth and employment led by the private sector; and (ii) spatial planning and public services — with a view to enhanced living standards for increased well-being. These areas are underscored by the cross-cutting themes of capacity building for good governance, and environment. The World Bank’s Board of Executive Directors approved the CPS in November 2010. The establishment of an in-country office in FY11, with a permanent World Bank Representative and an IFC Country Coordinator, will foster information sharing and close harmonization of activities.

### International Development Association (IDA)

**Bhutan is an IDA only country, and qualifies for 100 percent credits.** In FY10, Bhutan exceeded the IDA Gross National Income per capita operational cutoff for the third year in a row, and became a "gap" country. “Gap” countries receive IDA on hardened terms and are not eligible for grants, regardless of results of Debt Sustainability Analyses.

**Bhutan received resources beyond its original indicative allocation of SDR26.2 million for the IDA 15 cycle (FY09–11).** In FY09, Bhutan had the option of cumulatively frontloading up to 80 percent of its overall IDA 15 indicative allocation for FY09-11. Bhutan chose to frontload about SDR5.7 million, to add to its original FY09 allocation of SDR8.0 million. In the aftermath of the global economic crisis, Bhutan received an additional IDA credit allocation of SDR2.3 million in two stages from the South Asia Region Pilot Crisis Response Window facility in FY10. Bhutan was impacted in 2009 by natural disasters caused by Cyclone Aila in May and earthquakes in September and December, which caused estimated losses amounting to US\$65

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<sup>1</sup> Prepared by World Bank Group staff.

million. In response to this, the World Bank sanctioned an emergency IDA credit amounting to US\$10 million for Bhutan, to be committed by end-FY11. Accounting for frontloading and the additional allocations, Bhutan received IDA 15 credits of SDR8.3 million for FY10 and SDR13.6 million for FY11. Furthermore, following its commitment to participate in a project for Strengthening Regional Cooperation for Wildlife Protection in Asia in FY11, Bhutan received US\$5 million credit from intra-regional IDA reallocations. Finally, in January 2011, Bhutan received a grant of US\$5 million from the Food Price Crisis Response Trust Fund.

**The indicative IDA 16 (FY12-14) allocation for Bhutan is approximately US\$53 million.** Starting from IDA16, Bhutan will be eligible to receive IDA credits with a 25-year maturity, 5-year grace period and 1.25 percent interest charge in addition to the standard service and commitment charges. This involves hardening of terms over FY11, during which Bhutan received credits with a 20-year maturity, 10-year grace period, and no interest charges.

### IDA Lending and Nonlending Assistance

Project Name	Committed in USD	Percent Disbursed	Board Approval
<b>IDA</b>			
Education Development Project	32.60	107.0%	8/21/2003
HIV/AIDS and STI Prevention	5.77	94.3%	6/17/2004
Decentralized Rural Development	7.00	97.1%	3/1/2005
Second Rural Access Project	10.00	84.7%	4/10/2007
Private Sector Development Project	8.00	48.5%	6/20/2007
Institutional Capacity Building Project for Procurement	1.50	74.8%	6/10/2008
Urban Development II	12.01	16.3%	4/29/2010
Bhutan Development Policy Credit 1	24.75	0.0%	11/30/2010
<b>Pipeline</b>			
Strengthening Regional Cooperation for Wildlife Protection in Asia	2.25		TBD
Improving Rural Livelihood	12.00		5/22/2012
<b>Non-Lending (non-IDA)</b>			
Sustainable Land Management (GEF)	7.66	73.4%	1/17/2006
Introduction of Multi-Year Rolling Budgets (IDF)	0.33	68.8%	5/13/2007
Avian Influenza Control	2.50	76.8%	7/19/2007
Strengthening Institution Capacity for Implementation of Environmental Safeguards (IDF)	0.40	20.0%	4/16/2008
Strengthening of Public Procurement Policy Division (IDF)	0.48	31.3%	4/7/2009
Institutional Strengthening of Ministry of Labour and Human Resources (IDF)	0.49	28.0%	5/1/2010
Bhutan Disaster Risk and Recovery Program (GFDRR)*	0.30	45.2%	11/17/2010
First Grant Developing and Strengthening the Regulatory Framework	0.12	7.7%	11/28/2010
Trust Fund for Statistical Capacity Building	0.30	0.0%	12/3/2010
Strengthening the Institutional Capacity of Druk Holding and Investments to Improve Corporate Governance (IDF)	0.50	0.0%	2/1/2011

\*The total Grant is US\$ 600,000, of which US\$ 300,000 has been received.

**Note:** Data is as of March 31, 2011, for all active and pipeline operations in Bhutan obtained from the Business Warehouse database. Percent disbursed is as share of original project



commitment at Board approval, and does not take into account any additional financing that may have subsequently been processed.

## **Lending Program**

**During the IDA 14 cycle, covering FY06–08, more than SDR32 million in grants were committed to Bhutan.** The IDA 14 allocation financed: (i) a US\$15 million *First Development Policy Grant* approved in May 2006; (ii) a US\$10 million *Second Rural Access Roads Project* approved in April 2007; (iii) a US\$12 million *Second Development Policy Grant* approved in June 2007; (iv) a US\$8 million *Private Sector Development Project* approved in June 2007; (v) a US \$1.5 million *Institutional Capacity Building Project for Procurement* approved in June 2008; and (vi) US\$1.5 million in additional financing to the ongoing *Education Development Project*.

**The Bank’s Board of Executive Directors approved the following operations during the IDA 15 cycle, covering FY09–11.**

- The Board approved the US\$20.22 million **Development Policy Financing for Institutional Strengthening** in May 2009. The overarching objectives of the operation are to strengthen institutions to: (i) promote good governance through sound fiscal and public financial management and procurement, and strong accountability institutions; (ii) foster dynamic labor markets, ensure skills match, and generate employment; and (iii) expand access to infrastructure in an environmentally sustainable manner. This operation closed in March 2010, and has satisfactorily achieved its development objectives.
- The Board approved the US\$12 million **Second Urban Development Project** in April 2010. The project development objectives are to: (i) support Bhutan’s municipal reform program by strengthening municipal finance and management systems in Thimphu and Phuentsholing; and (ii) improve infrastructure services in northern Thimphu where no formal services are currently available. The first objective supports the RGoB’s municipal reform agenda and helps implement the country’s new legal framework for urban local governments through a series of technical assistance, policy support, training programs, and studies. The project also aims to help establish an effective intergovernmental fiscal transfer system. The second objective addresses an urgent need for serviced urban land in rapidly growing Thimphu City, given the already substantial and increasing migrant population settling in the peripheries of Thimphu.
- The Board approved the US\$24.75 million **First Development Policy Credit** in November 2010. This is designed as the first in a new programmatic series of budgetary operations, in support of the RGoB’s medium term reform agenda as articulated in the 10FYP. The overarching objectives of DPC1 are to strengthen institutions to: (i) promote government efficiency and effectiveness through sound fiscal and public financial management and procurement, and strong public administration; (ii) foster private sector

development by improving the policy environment and facilitating productive employment opportunities; and (iii) expand access to infrastructure in a sustainable manner.

- The Board approved US\$5 million additional financing to the ongoing **Decentralized Rural Development Project** in January 2011. This was made available from the Global Food Crisis Response Program Multi-Donor Food Price Crisis Response Trust Fund. The original project development objective is to improve market access and increase agricultural output for rural communities in selected areas of Bhutan. The additional Grant will help finance the costs associated with scaled-up activities and address the impact of the continuing high prices associated with essential food commodities. While the project development objective remains the same, the additional financing will focus on increasing support to the rehabilitation of irrigation canals, and to rice, potato, and maize as crops which have the best potential to address food insecurity in Bhutan.

In addition, a regional project for **Strengthening Regional Cooperation for Wildlife Protection in Asia** is under preparation towards Board approval in FY11. The project development objective is to assist the participating governments to build or enhance shared capacity, institutions, knowledge and incentives to collaborate in tackling illegal wildlife trade and other select regional conservation threats to habitats in border areas. The RGoB proposes to access regional IDA funding for US\$1.5 million, in addition to utilizing US\$0.75 million of its IDA country allocation. Hence, the RGoB will seek IDA support in the form of a Credit of US\$2.25 million.

### **Nonlending Program**

The Bank provides analytical and advisory services, aiming to help the Government build capacity in the areas of macroeconomic and fiscal analysis, public expenditure management, financial management, procurement, private sector development, statistics, and education quality. During FY06-09, the Bank approved several grants supporting these efforts. A US\$7.6 million **Sustainable Land Management Project**, and a US\$2.5 million **National Influenza Preparedness and Response Project** were both financed from global trust funds. A Trust Fund for **Statistical Capacity Building** (US\$250,000) was approved in FY07, and has subsequently closed. Institutional Development Fund (IDF) Grants to support **Introduction of Multi-Year Rolling Budgets** (US\$330,000), **Improving Public Financial Management** (US\$290,000),<sup>2</sup> **Strengthening Institution Capacity for Implementation of Environmental Safeguards** (US\$400,000), and **Strengthening of the Public Procurement Policy Division** (US\$484,000) became effective during this period.

The Bank approved five new Grants for Bhutan in FY10 and FY11.

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<sup>2</sup> This Grant has closed.

- A US\$498,500 IDF Grant for **Institutional Strengthening of Ministry of Labor and Human Resources** was approved in May 2010. The objective of the Grant is to strengthen the institutional capacity of the Ministry of Labour and Human Resources (MoLHR) to facilitate employment and labor market entry of Bhutanese youth. This consists of the following sub-components: (i) developing a National Employment Policy and reviewing Occupational Health and Safety regulations; (ii) developing innovative Public Private Partnerships (PPP) for skills development training for disadvantaged youth; and (iii) building the capacity of regional Labour and Employment offices to promote employment and labor services.
- A US\$600,000 **Bhutan Disaster Risk and Recovery Program** was approved in November 2010, funded by the Global Facility for Disaster Reduction and Recovery (GFDRR). Activities under this trust fund will help the RGoB's Department of Disaster management (DDM) strengthen its disaster management capacity. The Grant's development objective is reducing disaster risk and strengthening the RGoB's capacity in better responding to disasters. Particularly, the Grant supports: (i) a multi-hazard risk and vulnerability assessment and development of a risk atlas; (ii) capacity building for seismic resistant building design and construction techniques; (iii) strengthening emergency communications and disaster response; and (iv) conferences focusing on cultural heritage in the context of disaster management.
- A US\$123,000 First Initiative Trust Fund for **Developing and Strengthening the Regulatory Framework for Pension, Provident Fund, and Other Such Schemes in Bhutan** was approved in November 2010. The objectives of the Grant are to: (i) review the National Pension Policy, if needed; (ii) redraft the Pension Act and the regulations to make it consistent with the Employment and Labor Act of 2007 and the National Pension Policy of 2010; (iii) review investment policies and opportunities for private pensions.
- A US\$300,000 **Trust Fund for Statistical Capacity Building (TFSCB)** was approved in December 2010. The Grant's development objective is to strengthen capacity of the National Statistics Bureau (NSB) in priority areas according to Bhutan's National Statistics Development Strategy (NSDS). Particularly, the Grant will support measures to improve: (i) the National Accounts and price statistics, (ii) data infrastructure, (iii) data dissemination; and (iv) research and data analysis capacity at the NSB. This Grant aims to enable Bhutan to address the data needs of the country for planning, decision-making, and monitoring purposes.
- A US\$500,000 IDF Grant for **Strengthening the Institutional Capacity of Druk Holding and Investments to Improve Corporate Governance in Bhutan** was approved in February 2011. The objective of this Grant is to improve Corporate Governance (CG) among State Owned Enterprises (SOEs) in Bhutan by providing technical assistance to Druk Holding and Investments (DHI) to support CG capacity

building. The Grant will focus on: (i) enhancing DHI policies, developing CG norms, and improving performance monitoring for DHI companies; (ii) improving the capacity of DHI and its holdings through training directors of DHI companies; and (iii) raising awareness through seminars for media and other stakeholders on the importance of CG.

### **International Finance Corporation (IFC)**

Since Bhutan joined IFC as a member country in 2003 and IFC made its first investment (supporting the first Foreign Direct Investment) in the country, IFC has been cementing its presence and support to develop the private sector in Bhutan, including opening an office in Thimphu with a dedicated staff since November 2009. In the market where the public sector remains dominant in key sectors, IFC has been providing much needed advisory support to the RGoB and private sector to lay the ground for building a business-enabling environment while providing investment support as opportunities arise. In the context of IFC's South Asia Regional Strategy and WBG's CPS in Bhutan, IFC's support in Bhutan centers on three strategic pillars, including: (i) inclusive growth; (ii) climate change mitigation and adaptation; and (iii) global / regional integration. Reflecting these pillars, IFC is providing support to develop the private sector through investment climate improvement, financial sector modernization, real sectors and infrastructure development, and assistance with Public-Private Partnerships (PPPs) and linkages. IFC's advisory support is geared toward strengthening four areas: investment climate; financial sector infrastructure, including financial inclusion; PPPs; and skills development and the Small and Medium Enterprises (SME) sector. South Asia Enterprise Development Facility (SEDF), established in partnership with DFID and NORAD, has been at the center of IFC's advisory support for Bhutan.

In order to help facilitate healthy *investment climate*, IFC (through SEDF) assisted the RGoB in upgrading the FDI Policy and welcomed improved clarity and attractiveness of the revised Policy that came into effect in June 2010. Working closely with the World Bank, IFC assisted the RGoB with optimization of the company registration process, and now through its Licensing Simplification Project is working to improve the overall efficiency of business entry. It will improve regulatory procedures to obtain permits and licenses and establish e-License Portal. This, along with the adoption of the Enterprise Registration Act drafted with assistance from IFC to will reduce administrative burden to establishing or expanding a business and help facilitate trade and access to land.

To support *financial sector* development, IFC has provided Bank of Bhutan and Bhutan National Bank with four trade line facilities totaling US\$1.8 million under Global Trade Finance Program (GTFFP) since FY2009. The financial support was combined with advisory support, such as on risk management and Information Technology (IT) strategy. IFC is committed to continued development of the financial sector in Bhutan and is keen to explore further opportunities, including support for non-bank financial institutions (such as for SME finance, rural finance, trade finance) and commercial banks (such as with credit lines and participation in equity). Building on the diagnostic study conducted jointly with the World Bank, IFC is prepared to

support further modernization of payment systems in Bhutan. IFC is exploring possible support through both investment and advisory services to expand the availability of financial services, including payments and leasing for Micro, Small and Medium Enterprises.

In addition, IFC is interested in supporting the development of Bhutanese ***tourism, agribusiness, education and infrastructure***, especially through its investment business but also advisory engagements focusing on ***linkages and PPPs***. Opportunities are arising in Bhutan to develop and strengthen niche export markets, such as organic agriculture, which IFC is keen on opening up in order to support rural development. IFC successfully supported Association of Bhutan Women Entrepreneurs to scale-up initiative that introduced commercial agriculture to women in remote villages. In infrastructure, IFC remains interested in supporting people's increased access to services in ***ICT, hydropower and transport*** (including bus and aviation) through investments and PPP advisory services. To this end, IFC's PPP advisory team continues to explore opportunities to strengthen Bhutan's infrastructure provision and advise the RGoB on bankable PPP options to involve private sector. Presently, building on its regional and global expertise as PPP transaction advisor, IFC is in discussion with RGoB, support to bring in private sector players to participate in city's bus service operation and solid waste management. IFC also completed an operational and financial diagnostic review of Druk Air, the national airline, and a preliminary assessment of two sites proposed for development of industrial estates or potential Special Economic Zones (SEZ).

As of February 2011, IFC's portfolio stood at US\$6.9 million, consisting of a hotel project committed in FY2004 and trade guarantees under the GTFP.

### **III: BHUTAN—RELATIONS WITH THE ASIAN DEVELOPMENT BANK**

Bhutan became a member in 1982 and ADB began its lending operations to the country in 1983. Bhutan is classified under group “A” with a 50:50 mix of ADF loan and ADF grant assistance since 2011 and 80 percent cost-sharing limit for project financing.

ADB’s work has followed closely Bhutan’s Tenth Five-Year Plan, 2008–2013, and is guided by ADB’s Country Strategy and Program (CSP), approved in September 2005, and its country operations business plan, 2011–2013. The country assistance program evaluation, conducted in 2010, concluded that the strategy of poverty reduction through program and project assistance in four core sectors (transport, energy (including rural electrification and renewable energy), urban sector development, and finance and private sector development) is closely aligned with the development priorities articulated in the government’s Tenth Five-Year Plan 2008–2013 and Strategy 2020, ADB’s Long-Term Strategic Framework, 2008–2020.

The CSP is being implemented in coordination with other development partners to avoid duplication. Examples of effective partnerships include ADB’s rural electrification loans following the Rural Electrification Master Plan, which was developed with assistance from the Government of Japan. Similarly, development partners are using the Road Sector Master Plan, which was developed with ADB assistance. ADB has maintained close cooperation with other multilateral and bilateral funding agencies in capacity building.

The indicative cumulative value for the period 2011–2013 is \$55 million. A project on urban infrastructure has been programmed for 2011. Domestic airport development and rural road infrastructure projects are on the pipeline for 2012. Urban infrastructure development project is on the pipeline for 2013. A nonlending program of \$1.7 million per year has been programmed for 2011–2013.

## Bhutan: Ongoing Loans and Grants

(As of March 31, 2011)

Project	Year of Approval	Project Amount (\$ million)	Disbursements (\$ million)
<b>LOANS</b>			
Road Network Project	2005	27.3	24.799
Financial Sector Devt Program (Program Loan)	2006	11.0	8.312
Financial Sector Devt Program (Project Loan)	2006	2.0	0.951
Urban infrastructure development	2006	24.6	6.477
Green Power Development Project (OCR Loan)	2008	51.0	36.774
Green Power Development Project	2008	29.0	19.589
<b>GRANTS</b>			
Micro, Small & Medium-sized Enterprise Sector Devt Program	2007	6.0	2.000
Micro, Small & Medium-sized Enterprise Sector Devt Program	2007	9.0	3.249
SASEC Information Highway Project	2007	4.7	0.074
Green Power Development Project	2008	25.3	19.014
Road Network Project II	2009	38.8	0.968
Rural Renewable Energy Development Project	2010	21.6	----

<b>IV. BHUTAN —STATISTICAL ISSUES APPENDIX</b>	
As of March 15, 2011	
<b>I. Assessment of Data Adequacy for Surveillance</b>	
<b>General:</b> Data provision has some shortcomings, but is broadly adequate for surveillance. Most affected areas are: national accounts, balance of payments, and fiscal data.	
<b>Real sector:</b> As part of a Japan-funded technical assistance project for the Implementation of the System of National Accounts and the International Comparison Project that will take place over the next three years, the Statistics Department of the IMF (STA) will provide technical assistance to improve the national accounts and develop a producer price index.	
<b>National Accounts:</b> The accuracy and reliability of the data are affected by inadequate source data. Key shortcomings include heavy reliance on production data collected by line ministries, which often lack quality control, long lags in providing estimates, large revisions of historical data and, in certain cases, ad hoc estimation procedures. Lack of reliable data on expenditure components hampers estimation of national savings and domestic investment. The key factors contributing to the data deficiency are the shortage of qualified personnel and facilities. The National Statistical Bureau (NSB) is also constrained by the absence of a Statistics Act.	
<b>Price statistics:</b> Starting in 2004, the consumer price index (CPI) is compiled on a quarterly basis, the number of commodity prices has been greatly expanded, and the geographical scope broadened. An STA technical assistance mission planned for April 25–May 6, 2011 will assist with the development of a producer price index.	
<b>Government finance statistics:</b> Despite recent improvements in the quality of government finance statistics (GFS), the fiscal data are subject to frequent and substantial revisions, particularly in the expenditure area. The compilation and dissemination of budget execution data and GFS are very limited. Only annual budget execution data are compiled and disseminated, but with a long lag. No GFS are disseminated nationally. Sub-annual data on budget execution are not available. There are inconsistencies between the fiscal and monetary data with regard to bank financing, stemming from differences in the definition of government.	
<b>Monetary statistics:</b> While monetary statistics are generally consistent with the Fund’s guidelines, there is room for improvement in a number of areas, specifically: (i) the valuation of financial assets is based on purchase price while market or market-price equivalents would be preferable; (ii) to avoid misclassifications, a list of government units and nonfinancial public enterprises should be prepared and shared with the reporting financial institutions; During the technical assistance mission on <i>Monetary and Financial Statistics</i> (MFS) in March 2010, the authorities and STA improved the timeliness of data reporting to STA to be in line with national publications. As part of the mission objectives, the Royal Monetary Authority (RMA) has also submitted to STA the Financial Soundness Indicators (FSI) for Bhutan on a quarterly basis, which have been published on the IMF’s FSI website: <a href="http://fsi.imf.org/">http://fsi.imf.org/</a> .	
<b>Balance of payments:</b> Despite recent improvements, external statistics continue to be affected by shortcomings. These include: (i) limited coverage of services’ transactions in the current account, (ii) compilation of trade data on a quarterly basis, while other external transactions are compiled on a fiscal year basis. Consequently, errors and omissions in the balance of payments presentations are large and preclude a more accurate assessment of external flows.	
Building on the technical assistance mission in June 2009, a mission in March 2011, in conjunction with the RMA, developed the International Investment Position for Bhutan and a plan for improvement in balance of payments statistics. It includes a quarterly business survey, improved estimation methods, and increased timeliness. The RMA advised that they plan to compile and disseminate quarterly balance of payments data in the future. Bhutan began supplying balance of payments data for publication in <i>IFS</i> in November 2010.	
<b>II. Data Standards and Quality</b>	
Bhutan participates in the General Data Dissemination System (GDDS), and posted metadata for the first time on the Fund’s Dissemination Standard Bulletin Board (DSBB) in May 2010.	No data ROSC is available.



## Bhutan—Table of Common Indicators Required for Surveillance

As of March 28, 2011

	Date of Latest Observation	Date Received	Frequency of Data <sup>6</sup>	Frequency of Reporting <sup>6</sup>	Frequency of Publication <sup>6</sup>
Exchange rates	02/2011	3/2011	D	D	D
International reserve assets and reserve liabilities of the Monetary Authorities <sup>1</sup>	06/2009	10/2009	M	M	M
Reserve/base money	12/2010	3/2011	M	M	M
Broad money	11/2010	3/2011	M	M	M
Central bank balance sheet	11/2010	3/2011	M	M	M
Consolidated balance sheet of the banking system	11/2010	3/2011	Q	Q	Q
Interest rates <sup>2</sup>	09/2009	10/2009	M	M	M
Consumer price index	Q2/2010	2/2011	Q	Q	Q
Revenue, expenditure, balance and composition of financing <sup>3</sup> – general government <sup>4</sup>	2007/08	10/2009	A	A	A
Revenue, expenditure, balance and composition of financing <sup>3</sup> – central government	2007/08	10/2009	A	A	A
Stocks of central government and central government-guaranteed debt <sup>5</sup>	2007/08	01/2009	A	A	A
External current account balance	2009	10/2010	A	A	A
Exports and imports of goods and services	2009	10/2010	A	A	A
GDP/GNP	2008	10/2009	A	A	A
Gross external debt	06/2009	10/2009	Q	Q	Q
International investment position <sup>6</sup>	06/2009	10/2009	Q	Q	Q

<sup>1</sup> Any reserve assets that are pledged or otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.

<sup>2</sup> Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.

<sup>3</sup> Foreign, domestic bank, and domestic nonbank financing.

<sup>4</sup> The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

<sup>5</sup> Including currency and maturity composition.

<sup>6</sup> Includes external gross financial asset and liability positions vis-à-vis nonresidents.

<sup>7</sup> Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A), Irregular (I); Not Available (NA).

INTERNATIONAL MONETARY FUND  
INTERNATIONAL DEVELOPMENT ASSOCIATION

BHUTAN

**Joint IMF/World Bank Debt Sustainability Analysis 2011<sup>1</sup>**

Prepared by the staffs of the International Monetary Fund and  
the International Development Association

Approved by Laura Papi and Christian Mumssen (IMF)  
Jeffrey Lewis and Deepak Bhattasali (IDA)

May 13, 2011

*Bhutan's external and public debt dynamics are analyzed within the IMF-World Bank Debt Sustainability Framework for Low Income Countries (LIC-DSA).<sup>2</sup> While the development of the hydropower sector will lead to a substantial increase in external debt—with debt ratios breaching some country-specific LIC-DSA indicative thresholds—the staff's assessment is that the external debt dynamics remains subject to a moderate risk of distress. As in previous DSAs, this assessment is based on: the commercial viability of the hydropower projects, the risk sharing agreement with India for hydropower loans, Bhutan's strong track record of project implementation, rapid growth in energy demand from India, committed donor support, and Bhutan's high level of international reserves. The debt sustainability analysis underscores the importance of sustaining rapid economic growth going forward and containing domestically financed fiscal deficits.*

## I. BACKGROUND

1. **After peaking in 2004/05, Bhutan's public and publicly guaranteed debt declined by 17 percentage points to 68 percent of GDP at end 2008/09.<sup>3</sup>** Public debt declined following the completion of the Tala hydropower project—which was entirely financed by

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<sup>1</sup> This DSA was prepared jointly by the IMF and the World Bank, and in accordance with the Debt Sustainability Framework for low-income countries approved by the Executive Boards of the IMF and the IDA. The data underlying the analysis are from the Bhutanese authorities, and IMF and World Bank staff estimates.

<sup>2</sup> See “Debt Sustainability in Low-Income Countries: Proposals for an Operational Framework and Policy Implications” (<http://www.imf.org/external/np/pdr/sustain/2004/020304.htm>), “Debt Sustainability in Low-Income Countries: Further Considerations on an Operational Framework and Policy Implications” (<http://www.imf.org/external/np/pdr/sustain/2004/091004.htm>) and reference to “Staff Guidance Note on the Application of the Joint Bank-Fund Debt Sustainability Framework for Low-Income Countries.”

<sup>3</sup> Public debt does not include state-owned enterprise debt, with the exception of hydropower projects loans and the purchase of one aircraft for state-owned Druk Air in 2004/05. The other SOEs' debt is very small.

India—and by the onset of the repayment of the associated Indian rupee debt.<sup>4</sup> Rupee-denominated hydropower sector debt (41 percent of GDP) accounts for 62 percent of external debt, which in turn accounts for more than 95 percent of total public debt. Convertible currency debt has remained relatively range bound, reaching 34 percent of GDP in 2009/10.<sup>5</sup> The actual outturn of public debt indicators for last two years was slightly more favorable than projected in the previous DSAs since better-than-expected fiscal outturns compensated for the more rapid accumulation of rupee debt.<sup>6</sup> Domestic debt, all denominated in local currency and held by domestic financial institutions, has also declined on the back of rapid growth and relatively strong fiscal outturns during the same period.

Bhutan: Structure of Public Sector Debt  
(In percent of GDP)

	03/04	04/05	05/06	06/07	07/08	08/09	09/10
Total debt	73.3	80.7	84.9	84.8	74.6	66.2	67.7
Domestic debt	2.7	1.6	6.6	4.6	3.5	2.7	2.1
External debt	70.6	79.0	78.2	80.3	71.1	63.5	65.6
Of which: hydropower projects	54.3	54.9	54.9	47.0	42.1	42.2	40.6
Of which: convertible currency debt	32.3	30.9	32.3	30.3	27.1	28.7	33.8

Source: Royal Monetary Authority of Bhutan; and staff estimates.

## II. UNDERLYING DEBT SUSTAINABILITY ANALYSIS ASSUMPTIONS

2. **The baseline scenario continues to be predicated on the assumption that Bhutan stays on schedule on its planned expansion in power generation capacity (10,000 MW of installed capacity by 2020).**<sup>7</sup> The baseline scenario incorporates Punatsangchu I (Puna I), Punatsangchu II (Puna II), and Mangdechu hydropower projects.<sup>8</sup> These projects are financed

<sup>4</sup> In the whole Annex, the term rupee refers to the Indian rupee.

<sup>5</sup> Convertible currency debt mainly comprises loans from multilateral institutions, including \$9½ million commercial debt extended by the IFC, making all external debt public or publicly guaranteed.

<sup>6</sup> For instance, in the 2009 DSA, growth was projected at 6½ percent in 2009/10, with external debt reaching 69 percent of GDP. Instead, provisional estimates put growth at 7½ and external debt was 3½ percentage points lower. Likewise, average GDP growth is projected to be nearly 2 percentage points over the next five years, owing to stronger construction activity and higher capital spending. The higher GDP growth projection accounts for the bulk of the slower pace of debt accumulation relative to the previous DSA.

<sup>7</sup> The new hydropower development policy of Bhutan consists of ten hydropower projects, which would quintuple Bhutan's power generation capacity. The other projects are still on paper and the exact financing arrangements are under discussion with the GOI and other partners such as Indian companies (see Box 1 of the 2011 Staff report).

<sup>8</sup> Puna I's power generation capacity is 1,200 MW. Puna II's power generation capacity will be 990 MW, while Mangdechu's will be 720 MW. Debt service will begin after the commissioning of the projects and will continue for 12 years. As in the cases of Tala and Puna I, the interest payments accumulated during construction are expected to be repaid following project completion, but without being capitalized.

by the Government of India (GOI) through a combination of loans and grants (see also Box 1 in the 2011 Staff Report).<sup>9</sup> The intergovernmental implementation agreements on Puna II and Mangdechu were signed in April 2010 and pre-construction works are underway.

Repayments will start after the projects come on stream in 2019. External financing for non-hydropower sector activities is expected to remain predominantly from multilateral and bilateral donors at concessional terms.

**3. The overall economy will remain driven by the hydropower sector, as outlined in the following baseline macroeconomic assumptions:**

- **Real sector:** As in the case of the Tala project, when real GDP growth spiked in 2006/07, the Puna I, Mangdechu and Puna II projects are expected to boost economic growth as they come on stream. In addition, hydropower construction will also be a main contributor to growth. Real growth excluding hydropower-related activity is projected to remain robust at about 6–7 percent over the medium and long term, underpinned by tourism and other services. With the ngultrum pegged to the rupee, inflation is projected to remain broadly in line with inflation in India, initially averaging 7-8 percent in the near term and declining gradually to 4–5 percent over the medium term.
- **External sector:** The current account deficit is expected to widen over the medium term because of strong growth in import demand associated with the construction phase of the new hydropower projects, as well as Tala’s debt service. Upon the completion of hydropower projects, however, electricity exports are expected to more than triple from current levels, and the current account deficit should decline over the longer term, leading to balance of payment surpluses from 2019.<sup>10</sup>
- **Fiscal sector:** The hydropower projects will boost the domestic revenue-to-GDP ratio as they are completed after the new hydropower projects come on stream around 2017/18. Revenue will also benefit from an envisaged broadening of the tax base over time as well as improvements in tax administration.<sup>11</sup> Offsetting those developments,

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<sup>9</sup> Although the financing of hydropower projects is non-concessional (i.e., below the 35% grant element for LICs), there is a certain level of concessionality stemming from the grant portion of financing and the exemption from payment of interest during construction.

<sup>10</sup> The unusual shape of the grant element of new disbursement in figure 1a reflects the composition of new loans. Under the standard DSA assumptions, rupee debt appears non-concessional since the interest rate of 11 percent exceeds the 4 percent discount rate. Thus, until 2016/17, when rupee disbursements dominate external financing, the grant element appears low. However, it starts rising once the rupee-financed hydropower projects are completed, and concessional loans from multilateral and bilateral development partners take stage.

<sup>11</sup> Measures to broaden the tax base and improve administration include rationalizing sales and customs tax rates, broadening the sales tax base, and eventually introducing a VAT.

however, is the sharp projected decline in external aid, leaving the overall fiscal balance should remain broadly stable over the forecast horizon. Primary deficits arise over the medium term mainly because the decline in aid inflows does not lead to a similar compression of public investment, which would be detrimental to growth.

#### Key Macroeconomic Assumptions

	Baseline		10 year Historical Average
	2009/10- 2014/15	2015/16 - 2029/30	
Real GDP growth (percent)	8.4	5.9	8.1
Growth of exports of goods and services (US dollar terms)	6.9	13.5	19.4
Non-interest current account deficit (in percent of GDP)	-15.1	1.4	-8.9
Primary deficit (in percent of GDP)	0.9	-2.4	2.3

### III. EXTERNAL DEBT SUSTAINABILITY ANALYSIS

#### A. Baseline

4. **The hydropower sector cycles will remain the driver of Bhutan's external debt.** External debt in relation to GDP is projected to rise by 26 percentage points between 2009/10 and 2012/13 as disbursements for new hydropower projects increase. The debt ratios remain above the LIC-DSA indicative threshold for strong policy performance countries until 2016/17 for the PV of external debt as a share of exports and revenue, and until 2019/20 for the PV of external debt to GDP.<sup>12</sup> Debt ratios are projected to decline steadily with the start of debt repayment even as new projects are commissioned. The debt service-to-export and the debt service-to-revenue ratios are expected to remain below the indicative thresholds for the entire projection period.

#### B. Sensitivity Analysis

5. **Debt ratios are most vulnerable to exchange rate shocks, export growth shocks, and unfavorable financing terms, but are expected to decline under almost all alternative scenarios.** Importantly, the debt ratios are also projected to fall below the thresholds by 2020 in almost all cases considered. In the case of a 30 percent nominal depreciation in 2009/10, the PV of debt rises to more than *140 percent* of GDP. But such extreme scenario overestimates Bhutan's debt vulnerability since a large share of Bhutan's receipts are in rupees, which provide a natural hedge to the rupee-denominated debt. The

<sup>12</sup> Bhutan's Country Policy and Institutional Assessment (CPIA) index for 2009 was 3.89 (average of 3.86 for 2006–08), which classifies it as a strong performer with regard to its policies and institutions. The indicative thresholds for strong performers are 50, 200 and 300 for the PV of debt in percent of GDP, exports, and revenue respectively, and 25 and 35 for debt service in percent of exports and revenue. The PV of external debt is calculated assuming the standard discount rate of 4 percent for both rupee and convertible currency debt.

export growth shock and more unfavorable financing terms for new borrowing increase debt ratios.<sup>13</sup> If the growth rate is slower than envisaged, debt distress indicators will only slightly deviate from the baseline scenario.

6. **Under the most extreme shock scenario, the debt service-to-revenue ratio would temporarily breach the indicative threshold** as Puna II and Mangdechu's debt service begins; but even in this scenario, it is expected to remain below the threshold for the rest of the projection period. The historical scenario shows explosive debt dynamics, as it does not fully capture the entire cycle of construction and operation of the hydropower projects.

#### IV. PUBLIC DEBT SUSTAINABILITY ANALYSIS

##### A. Baseline

7. **The baseline public debt dynamics is determined by that of external debt.** The public debt-to-GDP ratio is expected to rise with the start of new hydropower projects (peaking at 110 percent of GDP in 2014/15) and subsequently decline until it reaches 35 percent of GDP by end 2029/30. In spite of the volatility in hydropower-related revenue related to seasonality, it is assumed that revenue gains materialize when the new hydropower projects come on stream, and revenues stabilize at around 20 percent of GDP.<sup>14</sup> Given Bhutan's robust growth and strong overall performance, external financing is projected to shrink as a share of GDP. As domestic financing increases temporarily during the 2010–2015 to offset declining grants, domestic debt is projected to reach about 20 percent of GDP by 2014/15 and be broadly stable around that level as share of GDP for the remainder of the projection period.

##### B. Sensitivity Analysis

8. **Given the large share of external debt in total public debt and the impact of exchange rate shocks on the former, overall public debt is most vulnerable to exchange rate shocks.** A one-time depreciation leads to an upward shift in the various public debt indicators, while leaving the broad shape of the debt indicators' path unchanged. Under the historical scenario (assuming a primary deficit of 2⅓ percent of GDP), public sector debt would rise and remain at a high level over the long term. Such a scenario also shows the importance of containing fiscal deficits to help ensure that public debt remains sustainable. Finally, if borrowed resources were not used productively, the debt ratios would deteriorate

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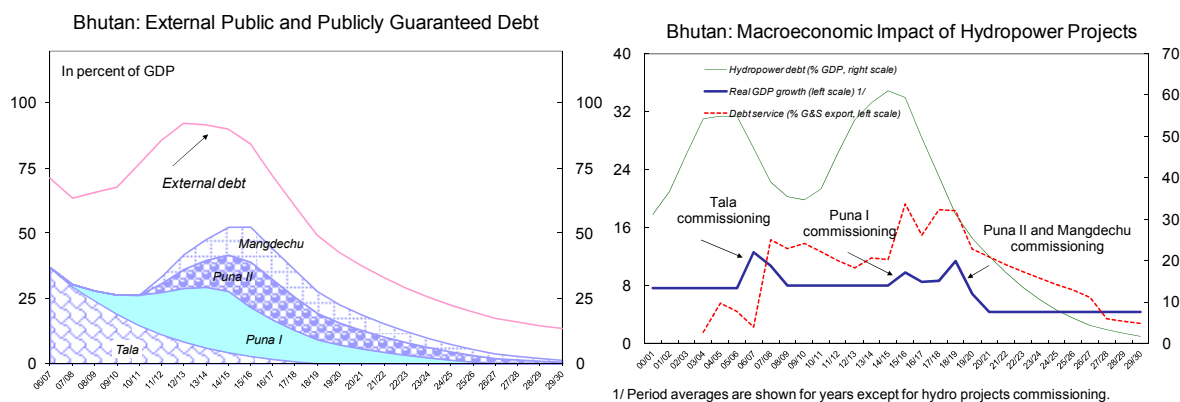
<sup>13</sup> This scenario envisages real GDP growth at its historical average minus one standard deviation (tables 2a and 3b).

<sup>14</sup> The strong seasonal patterns of electricity generation stem from seasonality in water levels. While such seasonal patterns generate volatility in revenues from hydropower exports within the fiscal year, annual hydropower exports can be reasonably well estimated. Hence, the effect of revenue volatility on debt sustainability is small.

markedly. The “high investment, low growth” scenario is unlikely given the commercial viability of the projects and Bhutan’s strong implementation capacity, but such scenario highlights the risks from lower than anticipated growth payoff of the debt-financed hydropower projects. For instance, if investment in the hydropower sector does not generate any growth, public debt will peak at 125 percent of GDP and decline at a much slower speed (Table 2a).

## V. STAFF ASSESSMENT

9. **As in the 2009 IMF/World Bank Joint DSA, Bhutan’s external debt dynamics are deemed sustainable but subject to a moderate risk of distress.** As noted above, policy-related LIC-DSA thresholds for external debt are breached for several indicators, but they remain so for a shorter period than in the previous DSA. In addition, the new hydropower projects are widely expected to boost exports and overall GDP growth.<sup>15</sup> While the debt stock is expected to increase substantially, the new hydropower projects do not entail significant vulnerabilities to debt servicing as debt-service ratios remain below indicative thresholds.



10. **In addition, as in previous DSAs, several mitigating factors are at play:**

- *Commercial viability of new hydropower projects.* Puna I is expected to have a higher internal rate of return, given lower costs of construction than Tala and a larger generation capacity. At the same time, the internal rate of return for Puna II and

<sup>15</sup> Focusing on the average growth over a 20-year period, which appears little affected by the addition of the new hydropower projects, understates the economic impact of these projects. At commissioning, these projects will generate large spikes in real GDP growth, boost incomes and exports; however, with generation capacity fixed, the impact on growth after commissioning will be limited.

Mangdechu are expected to remain high at about 11–14 percent,<sup>16</sup> significantly higher than the effective cost of financing (estimated at about 8 percent).

- *Bhutan’s strong track record of project implementation.* In light of this, new hydropower projects are expected to remain subject to low implementation risk.
- *Strong ties with India.* Bhutan is widely expected to maintain close economic ties with India, which has been the main provider of financing for hydropower projects. Given India’s sizable power deficit, its demand for Bhutan’s hydropower electricity should remain high for decades to come. At the project level, operational risks (including those related to natural disasters) shall be borne by the Government of India; hydropower-related loans do not represent contingent liabilities for the Royal Government of Bhutan.

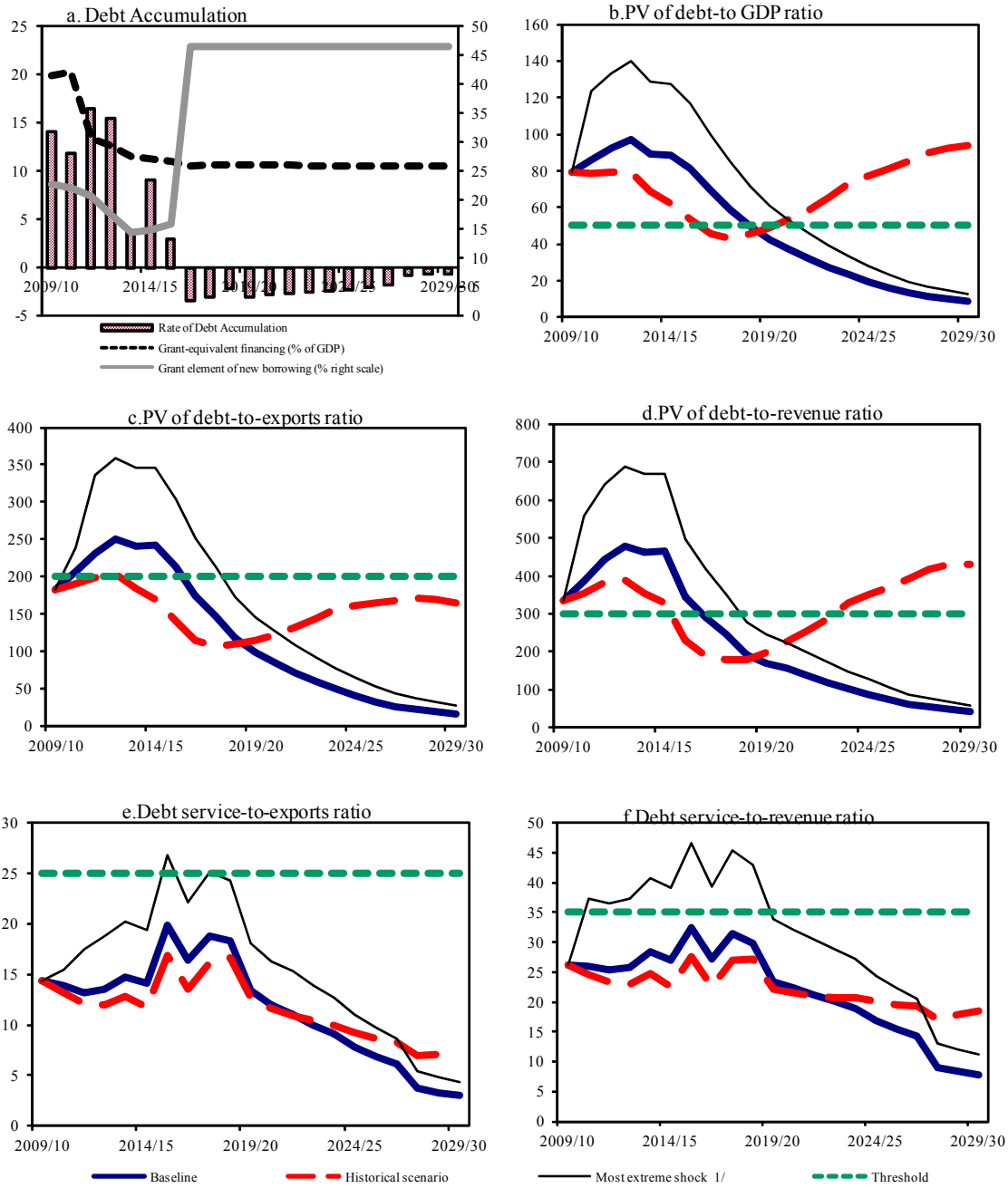
11. **The authorities broadly agreed with the debt projections underlying the staff’s DSA as well as the staff’s assessment.** However, they underscored the importance of the mitigating factors outlined in the staff’s analysis, particularly the commercial viability of the projects and strong donor support.

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<sup>16</sup> The projects’ internal rates of return were provided by authorities.



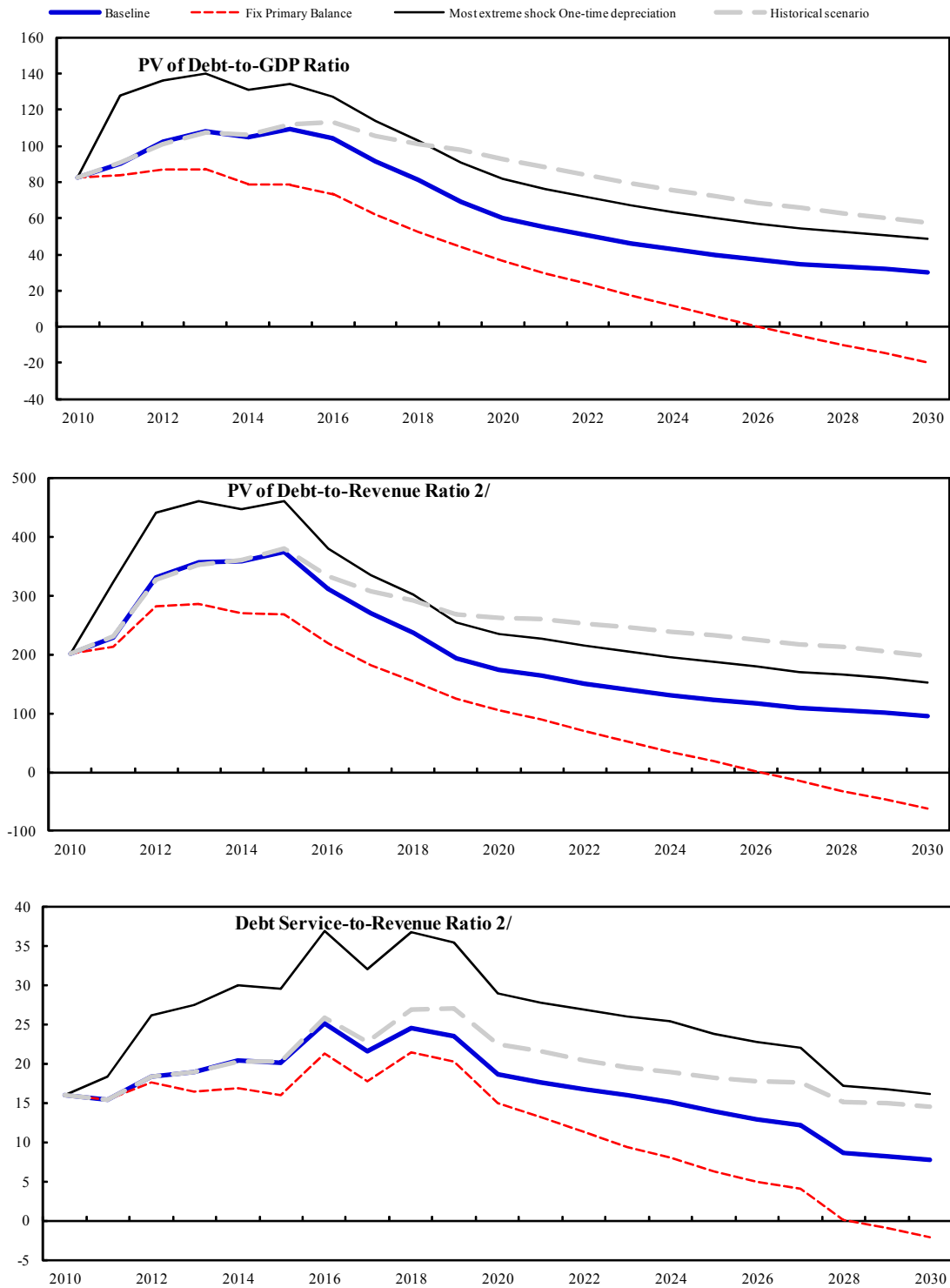
Figure 1. Bhutan: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2009/10-2029/30 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2019/20. In figure b, it corresponds to a One-time depreciation shock; in c, to a Exports shock; in d, to a One-time depreciation shock; in e, to a Exports shock and in figure f, to a One-time depreciation shock

Figure 2. Bhutan: Indicators of Public Debt Under Alternative Scenarios, 2009/10-2029/30 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2019/20.

2/ Revenues are defined inclusive of grants.

Table 1a. Bhutan: Public Sector Debt Sustainability Framework, Baseline Scenario, 2007-2030  
(In percent of GDP, unless otherwise indicated)

	Actual			Average	Standard Deviation	Estimate					Projections			
	2007	2008	2009			2010	2011	2012	2013	2014	2015	2010-15 Average	2020	2030
<b>Public sector debt 1/</b>	74.6	66.2	67.7			70.9	81.3	95.7	103.9	107.7	111.0	20.6	60.9	34.8
o/w foreign-currency denominated	71.1	63.5	65.6			67.7	76.5	86.2	92.5	91.8	90.4		42.7	13.5
Change in public sector debt	-10.2	-8.4	1.5			3.2	10.3	14.5	8.2	3.8	3.3		-8.3	-1.5
Identified debt-creating flows	-14.1	-15.8	1.5			-12.3	0.2	-1.1	-4.7	-7.7	-6.9		-8.1	-1.4
Primary deficit	-2.2	-3.9	-5.3	2.3	6.1	-5.7	1.6	4.0	2.5	1.7	1.4	0.9	-4.8	0.0
Revenue and grants	35.7	35.1	35.6			41.0	39.5	30.9	30.4	29.3	29.2		34.8	31.8
of which: grants	13.3	11.4	11.3			17.3	17.3	10.1	10.1	10.1	10.1		10.1	10.1
Primary (noninterest) expenditure	33.5	31.1	30.2			35.3	41.1	34.9	32.9	31.1	30.6		30.0	31.7
Automatic debt dynamics	-11.9	-11.9	6.8			-6.6	-1.4	-5.1	-7.2	-9.4	-8.3		-3.2	-1.3
Contribution from interest rate/growth differential	-10.2	-5.1	-1.9			-2.0	-3.3	-4.5	-6.0	-8.2	-7.7		-2.4	-1.1
of which: contribution from average real interest rate	-0.8	2.2	1.6			2.7	2.0	1.7	1.3	0.9	0.8		2.0	0.5
of which: contribution from real GDP growth	-9.5	-7.2	-3.6			-4.7	-5.4	-6.2	-7.3	-9.2	-8.5		-4.4	-1.6
Contribution from real exchange rate depreciation	-1.7	-6.8	8.7			-4.5	2.0	-0.6	-1.2	-1.2	-0.6		...	...
Other identified debt-creating flows	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Recognition of implicit or contingent liabilities	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Debt relief (HIPC and other)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Other (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Residual, including asset changes	3.8	7.4	0.1			15.5	10.1	15.6	12.9	11.5	10.2		-0.2	-0.2
<b>Other Sustainability Indicators</b>														
<b>PV of public sector debt</b>	3.5	2.7	80.6			82.4	90.5	102.1	108.4	105.2	109.3		60.4	30.2
o/w foreign-currency denominated	0.0	0.0	78.4			79.2	85.8	92.5	97.0	89.3	88.7		42.2	8.8
o/w external	...	...	78.4			79.2	85.8	92.5	97.0	89.3	88.7		42.2	8.8
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...
Gross financing need 2/	0.4	3.8	1.4			0.9	7.7	9.6	8.3	7.7	7.3		1.7	2.4
PV of public sector debt-to-revenue and grants ratio (in percent)	9.8	7.7	226.6			201.1	229.2	330.5	356.5	358.7	374.9		173.4	95.0
PV of public sector debt-to-revenue ratio (in percent)	15.6	11.4	332.6			348.5	407.8	490.5	533.2	546.5	573.0		244.2	139.1
o/w external 3/	...	...	323.9			335.1	386.5	444.6	477.2	463.8	465.0		170.7	40.7
Debt service-to-revenue and grants ratio (in percent) 4/	7.3	22.0	19.0			16.0	15.5	18.3	19.0	20.5	20.1		18.7	7.8
Debt service-to-revenue ratio (in percent) 4/	11.6	32.5	27.9			27.8	27.5	27.2	28.4	31.2	30.7		26.3	11.4
Primary deficit that stabilizes the debt-to-GDP ratio	8.1	4.5	-6.9			-8.9	-8.7	-10.5	-5.7	-2.1	-1.9		3.5	1.5
<b>Key macroeconomic and fiscal assumptions</b>														
Real GDP growth (in percent)	12.6	10.8	5.7	8.1	2.3	7.5	8.2	8.3	8.2	9.7	8.6	8.4	6.8	4.5
Average nominal interest rate on forex debt (in percent)	1.9	6.0	4.3	2.0	1.8	5.4	4.4	3.9	3.2	2.7	2.5	3.7	6.0	5.6
Average real interest rate on domestic debt (in percent)	1.5	1.1	0.3	3.6	4.7	-0.4	-1.8	-1.7	-1.8	-1.2	-0.4	-1.2	-0.3	-0.4
Real exchange rate depreciation (in percent, + indicates depreciation)	-2.3	-10.3	14.1	-1.5	7.1	-7.1	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	4.3	4.4	5.3	4.5	0.7	6.1	6.7	6.2	6.0	5.3	4.5	5.8	4.3	4.4
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	0.0	0.0	0.0	0.1	0.3	0.3	-0.1	0.0	0.0	0.1	0.1	0.1	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	22.7	22.0	20.7	17.4	14.4	14.7	18.7	46.5	46.5

Sources: Country authorities; and staff estimates and projections.

1/ [Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net or gross debt is used.]

2/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.

3/ Revenues excluding grants.

4/ Debt service is defined as the sum of interest and amortization of medium and long-term debt.

5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

Table 2a. Bhutan: Sensitivity Analysis for Key Indicators of Public Debt 2010-2030

	Projections							
	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2019/20	2029/30
<b>PV of Debt-to-GDP Ratio</b>								
<b>Baseline</b>	82	91	102	108	105	109	60	30
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	82	91	101	108	106	112	93	57
A2. Primary balance is unchanged from 2010	82	84	87	87	79	78	36	-20
A3. Permanently lower GDP growth 1/	82	91	103	110	108	113	68	49
A4. Alternative Scenario: high investment, low growth	84	95	112	122	120	125	107	87
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	82	93	108	115	113	118	70	43
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	82	97	112	117	113	117	65	33
B3. Combination of B1-B2 using one half standard deviation shocks	82	95	109	115	112	116	67	38
B4. One-time 30 percent real depreciation in 2011	82	128	136	140	131	135	82	48
B5. 10 percent of GDP increase in other debt-creating flows in 2011	82	100	111	116	112	116	65	33
<b>PV of Debt-to-Revenue Ratio 2/</b>								
<b>Baseline</b>	201	229	330	356	359	375	173	95
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	201	231	328	353	361	381	262	197
A2. Primary balance is unchanged from 2010	201	213	282	287	269	269	104	-61
A3. Permanently lower GDP growth 1/	201	230	333	361	366	384	191	150
A4. Alternative Scenario: high investment, low growth	204	403	367	416	410	372	373	596
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	201	233	344	374	378	397	197	135
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	201	245	362	386	387	401	188	105
B3. Combination of B1-B2 using one half standard deviation shocks	201	239	349	376	379	396	191	120
B4. One-time 30 percent real depreciation in 2011	201	324	441	460	448	462	235	152
B5. 10 percent of GDP increase in other debt-creating flows in 2011	201	252	358	382	383	398	186	104
<b>Debt Service-to-Revenue Ratio 2/</b>								
<b>Baseline</b>	16	15	18	19	20	20	19	8
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	16	15	18	19	20	20	22	15
A2. Primary balance is unchanged from 2010	16	15	18	16	17	16	15	-2
A3. Permanently lower GDP growth 1/	16	16	18	19	21	21	20	11
A4. Alternative Scenario: high investment, low growth	16	27	21	23	22	19	32	30
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2011-2012	16	16	19	20	21	21	20	10
B2. Primary balance is at historical average minus one standard deviations in 2011-2012	16	15	19	21	22	21	20	9
B3. Combination of B1-B2 using one half standard deviation shocks	16	16	19	20	21	21	20	10
B4. One-time 30 percent real depreciation in 2011	16	18	26	27	30	30	29	16
B5. 10 percent of GDP increase in other debt-creating flows in 2011	16	15	19	21	21	21	20	9

Sources: Country authorities; and staff estimates and projections.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.

2/ Revenues are defined inclusive of grants.

Table 3a. Bhutan: External Debt Sustainability Framework, Baseline Scenario, 2007-2030 1/  
(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average	Standard Deviation	Projections									
	2007	2008	2009			2010	2011	2012	2013	2014	2015	2010-2015 Average	2020	2030	2016-2030 Average
<b>External debt (nominal) 1/</b>	<b>71.1</b>	<b>63.5</b>	<b>65.6</b>			<b>67.7</b>	<b>76.5</b>	<b>86.2</b>	<b>92.5</b>	<b>91.8</b>	<b>90.4</b>		<b>42.7</b>	<b>13.5</b>	
o/w public and publicly guaranteed (PPG)	71.1	63.5	65.6			67.7	76.5	86.2	92.5	91.8	90.4		42.7	13.5	
Change in external debt	-9.2	-7.6	2.1			2.2	8.8	9.6	6.3	-0.7	-1.4		-6.8	-1.2	
Identified net debt-creating flows	-34.2	-15.1	4.4			8.2	8.3	10.6	9.4	7.8	9.2		-5.1	-2.1	
<b>Non-interest current account deficit</b>	<b>-15.5</b>	<b>-1.3</b>	<b>-1.3</b>	<b>8.9</b>	<b>14.2</b>	<b>10.2</b>	<b>12.0</b>	<b>16.1</b>	<b>16.8</b>	<b>16.9</b>	<b>17.4</b>		<b>-2.9</b>	<b>-1.4</b>	<b>-1.5</b>
Deficit in balance of goods and services	-4.9	8.6	9.0			22.6	24.5	21.8	22.2	22.4	23.2		4.8	8.1	
Exports	62.1	50.6	47.2			43.2	41.3	40.1	38.8	37.2	36.7		43.1	56.5	
Imports	57.2	59.2	56.2			65.8	65.9	61.9	61.0	59.6	59.9		48.0	64.6	
Net current transfers (negative = inflow)	-9.4	-9.0	-10.4	-9.1	1.7	-13.4	-13.6	-7.0	-7.0	-7.0	-7.0		-7.0	-7.0	-7.0
o/w official	-14.6	-12.5	-12.4			-19.0	-19.3	-11.3	-11.3	-11.3	-11.3		-11.3	-11.3	
Other current account flows (negative = net inflow)	-1.3	-0.9	0.1			1.0	1.1	1.3	1.6	1.5	1.1		-0.7	-2.4	
<b>Net FDI (negative = inflow)</b>	<b>-7.2</b>	<b>-2.3</b>	<b>-1.2</b>	<b>-1.4</b>	<b>2.1</b>	<b>-0.8</b>	<b>-1.4</b>	<b>-2.4</b>	<b>-3.5</b>	<b>-3.4</b>	<b>-3.2</b>		<b>-1.8</b>	<b>-0.9</b>	<b>-1.6</b>
<b>Endogenous debt dynamics 2/</b>	<b>-11.4</b>	<b>-11.6</b>	<b>6.9</b>			<b>-1.2</b>	<b>-2.4</b>	<b>-3.0</b>	<b>-3.9</b>	<b>-5.7</b>	<b>-5.1</b>		<b>-0.4</b>	<b>0.1</b>	
From	1.3	3.4	2.9			3.0	2.8	2.7	2.5	2.2	2.1		2.7	0.8	
Kvintradze, Eteri	-8.5	-6.0	-3.9			-4.2	-5.2	-5.7	-6.3	-7.9	-7.1		-3.1	-0.6	
Contribution from price and exchange rate changes	-4.2	-8.9	7.9			...	...	...	...	...	...		...	...	
<b>Residual (3-4) 3/</b>	<b>25.0</b>	<b>7.5</b>	<b>-2.3</b>			<b>-0.8</b>	<b>-0.8</b>	<b>0.6</b>	<b>-0.6</b>	<b>-5.9</b>	<b>-8.7</b> #		<b>-0.2</b>	<b>1.4</b>	
o/w exceptional financing	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/	...	...	78.4			79.2	85.8	92.5	97.0	89.3	88.7		42.2	8.8	
In percent of exports	...	...	166.3			183.2	207.6	230.9	249.8	240.3	241.9		97.8	15.6	
<b>PV of PPG external debt</b>	<b>...</b>	<b>...</b>	<b>78.4</b>			<b>79.2</b>	<b>85.8</b>	<b>92.5</b>	<b>97.0</b>	<b>89.3</b>	<b>88.7</b>		<b>42.2</b>	<b>8.8</b>	
<b>In percent of exports</b>	<b>...</b>	<b>...</b>	<b>166.3</b>			<b>183.2</b>	<b>207.6</b>	<b>230.9</b>	<b>249.8</b>	<b>240.3</b>	<b>241.9</b>		<b>97.8</b>	<b>15.6</b>	
<b>In percent of government revenues</b>	<b>...</b>	<b>...</b>	<b>323.9</b>			<b>335.1</b>	<b>386.5</b>	<b>444.6</b>	<b>477.2</b>	<b>463.8</b>	<b>465.0</b>		<b>170.7</b>	<b>40.7</b>	
<b>Debt service-to-exports ratio (in percent)</b>	<b>3.8</b>	<b>14.2</b>	<b>13.4</b>			<b>14.4</b>	<b>13.9</b>	<b>13.2</b>	<b>13.5</b>	<b>14.7</b>	<b>14.1</b>		<b>13.4</b>	<b>3.0</b>	
<b>PPG debt service-to-exports ratio (in percent)</b>	<b>3.8</b>	<b>14.2</b>	<b>13.4</b>			<b>14.3</b>	<b>13.9</b>	<b>13.2</b>	<b>13.5</b>	<b>14.7</b>	<b>14.1</b>		<b>13.4</b>	<b>3.0</b>	
<b>PPG debt service-to-revenue ratio (in percent)</b>	<b>10.5</b>	<b>30.4</b>	<b>26.1</b>			<b>26.2</b>	<b>25.9</b>	<b>25.3</b>	<b>25.8</b>	<b>28.3</b>	<b>27.1</b>		<b>23.4</b>	<b>7.7</b>	
Total gross financing need (Millions of U.S. dollars)	-207.6	46.7	46.4			221.0	246.8	315.7	342.8	397.2	450.3		46.1	-48.2	
Non-interest current account deficit that stabilizes debt ratio	-6.4	6.3	-3.4			8.0	3.2	6.5	10.4	17.6	18.8		3.9	-0.2	
<b>Key macroeconomic assumptions</b>															
Real GDP growth (in percent)	12.6	10.8	5.7	8.1	2.3	7.5	8.2	8.3	8.2	9.7	8.6	8.4	6.8	4.5	5.9
GDP deflator in US dollar terms (change in percent)	5.6	14.3	-11.0	3.6	6.8	8.7	-1.9	2.1	2.9	2.9	2.1	2.8	3.2	3.2	3.2
Effective interest rate (percent) 5/	1.9	6.0	4.3	2.0	1.8	5.4	4.4	3.9	3.2	2.7	2.5	3.7	6.0	5.6	5.9
Growth of exports of G&S (US dollar terms, in percent)	74.2	3.1	-12.4	19.4	27.6	7.1	1.5	7.2	8.0	7.9	9.5	6.9	13.6	11.9	12.5
Growth of imports of G&S (US dollar terms, in percent)	16.9	31.0	-10.8	15.8	20.5	36.9	6.2	3.8	9.8	10.1	11.6	13.1	9.5	14.8	9.9
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	22.7	22.0	20.7	17.4	14.4	14.7	18.7	46.5	46.5	44.4
Government revenues (excluding grants, in percent of GDP)	22.4	23.7	24.2			23.6	22.2	20.8	20.3	19.3	19.1		24.7	21.7	23.0
Aid flows (in Millions of US dollars) 7/	166.0	184.6	266.8			294.1	319.8	237.2	227.5	217.4	242.0		469.7	957.2	
o/w Grants	135.8	147.0	137.6			245.8	260.4	167.9	187.0	210.9	233.9		421.9	885.9	
o/w Concessional loans	30.2	37.5	129.1			48.3	59.4	69.4	40.6	6.6	8.1		47.8	71.2	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			19.8	20.2	13.4	12.6	11.5	11.3		10.6	10.5	10.6
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			70.1	66.2	51.2	51.1	57.6	61.6		94.6	96.0	93.6
<b>Memorandum items:</b>															
Nominal GDP (Millions of US dollars)	1019.9	1290.7	1214.0			1418.6	1505.6	1664.9	1854.3	2091.5	2319.8		4184.2	8786.6	
Nominal dollar GDP growth	18.8	26.6	-5.9			16.9	6.1	10.6	11.4	12.8	10.9	11.4	10.2	7.9	9.3
PV of PPG external debt (in Millions of US dollars)			952.3			1123.2	1292.2	1540.7	1798.9	1868.2	2058.3		1765.5	776.8	
(PVI-PVI-1)/GDPI-1 (in percent)						14.1	11.9	16.5	15.5	3.7	9.1	11.8	-3.0	-0.6	-1.8

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

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

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

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

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

6/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

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

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

Table 3b. Bhutan: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2010-2030  
(In percent)

	Projections								
	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2019/20	2029/30
<b>PV of debt-to GDP ratio</b>									
<b>Baseline</b>	79	86	93	97	89	89	81	42	9
<b>A. Alternative Scenarios</b>									
A1. Key variables at their historical averages in 2010-2030 1/	79	79	80	79	68	62	54	49	94
A2. New public sector loans on less favorable terms in 2010-2030 2	79	90	102	109	101	100	93	53	18
<b>B. Bound Tests</b>									
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	79	88	97	101	93	93	85	44	9
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	79	89	104	108	99	98	90	48	12
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	79	87	99	104	96	95	87	45	9
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	79	94	102	106	98	97	89	47	11
B5. Combination of B1-B4 using one-half standard deviation shocks	79	89	99	103	95	94	86	45	10
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	79	124	133	140	129	128	117	61	13
<b>PV of debt-to-exports ratio</b>									
<b>Baseline</b>	183	208	231	250	240	242	213	98	16
<b>A. Alternative Scenarios</b>									
A1. Key variables at their historical averages in 2010-2030 1/	183	191	199	204	184	170	141	114	166
A2. New public sector loans on less favorable terms in 2010-2030 2	183	218	255	281	272	274	243	122	32
<b>B. Bound Tests</b>									
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	183	208	231	250	240	242	213	98	16
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	183	239	336	359	346	346	304	145	27
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	183	208	231	250	240	242	213	98	16
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	183	226	255	273	263	263	232	110	20
B5. Combination of B1-B4 using one-half standard deviation shocks	183	210	236	254	244	245	216	101	17
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	183	208	231	250	240	242	213	98	16
<b>PV of debt-to-revenue ratio</b>									
<b>Baseline</b>	335	387	445	477	464	465	346	171	41
<b>A. Alternative Scenarios</b>									
A1. Key variables at their historical averages in 2010-2030 1/	335	356	382	390	356	327	229	199	431
A2. New public sector loans on less favorable terms in 2010-2030 2	335	406	491	536	524	527	396	214	83
<b>B. Bound Tests</b>									
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	335	395	465	499	485	486	362	178	43
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	335	403	501	531	516	514	383	196	55
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	335	392	476	511	497	498	371	183	44
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	335	421	492	522	507	506	377	192	52
B5. Combination of B1-B4 using one-half standard deviation shocks	335	402	475	507	493	493	367	184	47
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	335	557	640	687	668	670	499	246	59

Table 3b. Bhutan: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2010-2030 (continued)  
(In percent)

<b>Debt service-to-exports ratio</b>									
<b>Baseline</b>	14	14	13	14	15	14	20	13	3
<b>A. Alternative Scenarios</b>									
A1. Key variables at their historical averages in 2010-2030 1/	14	13	12	12	13	12	17	13	7
A2. New public sector loans on less favorable terms in 2010-2030 2	14	14	13	14	16	15	21	15	4
<b>B. Bound Tests</b>									
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	14	14	13	14	15	14	20	13	3
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	14	15	17	19	20	19	27	18	4
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	14	14	13	14	15	14	20	13	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	14	14	14	14	15	15	21	14	3
B5. Combination of B1-B4 using one-half standard deviation shocks	14	13	13	14	15	14	20	13	3
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	14	14	13	14	15	14	20	13	3
<b>Debt service-to-revenue ratio</b>									
<b>Baseline</b>	26	26	25	26	28	27	32	23	8
<b>A. Alternative Scenarios</b>									
A1. Key variables at their historical averages in 2010-2030 1/	26	25	23	23	25	23	27	22	19
A2. New public sector loans on less favorable terms in 2010-2030 2	26	26	26	27	31	30	34	26	11
<b>B. Bound Tests</b>									
B1. Real GDP growth at historical average minus one standard deviation in 2011-2012	26	26	26	27	30	28	34	24	8
B2. Export value growth at historical average minus one standard deviation in 2011-2012 3/	26	26	26	28	30	29	34	24	9
B3. US dollar GDP deflator at historical average minus one standard deviation in 2011-2012	26	26	27	28	30	29	35	25	8
B4. Net non-debt creating flows at historical average minus one standard deviation in 2011-2012 4/	26	26	27	27	30	29	33	24	9
B5. Combination of B1-B4 using one-half standard deviation shocks	26	26	27	27	30	28	34	24	8
B6. One-time 30 percent nominal depreciation relative to the baseline in 2011 5/	26	37	37	37	41	39	47	34	11
<i>Memorandum item:</i>									
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	8	8	8	8	8	8	8	8	8

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline., while grace and maturity periods are the same as in the baseline.

3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

4/ Includes official and private transfers and FDI.

5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.

6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.



INTERNATIONAL MONETARY FUND

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International Monetary Fund  
700 19<sup>th</sup> Street, NW  
Washington, D. C. 20431 USA

## **IMF Executive Board Concludes 2011 Article IV Consultation with Bhutan**

On May, 27, 2011, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Bhutan.<sup>1</sup>

### **Background**

Following its transition into a parliamentary democracy in 2008, Bhutan has enjoyed political stability and the transition to a full participatory democracy has proceeded steadily. Growth has been strong, averaging around 8 percent in the last decade. The hydropower sector, supported by grants and strong ties to from India, has been the main driver, while construction and the services sector also saw robust growth. Inflation has risen, tracking closely price developments in India, which supplies about three-quarters of Bhutan's imports. Social development indicators are progressing steadily, and Bhutan is on track or has achieved most of its Millennium Development Goals.

Bhutan's near-term outlook is favorable, but there are risks of overheating. Growth is expected to remain at around 8 percent. The current account deficit will remain high due to hydropower-related imports, but financing from India and other development partners is expected to be adequate. As a result, the overall balance of payment is projected to remain in surplus. At the

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<sup>1</sup> Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>.



same time, inflation is expected to decline while remaining somewhat elevated (at around 6 percent), with inflation risks to the upside.

Despite challenges, the medium-term outlook is also positive. Growth is projected to remain robust at 8–9 percent over the remainder of the 10<sup>th</sup> Five Year Plan (FYP; 2011–13), in part driven by the construction of new hydropower projects. The current account deficit is expected to widen as the construction of hydropower projects pick up steam. Pressure on the overall balance of payments, however, is expected to remain manageable as associated loan disbursements from India are also projected to increase.

Over the medium term, implementing key structural reforms is critical to sustaining rapid growth. If the development spending crowds in more private sector investment, higher productivity could provide a boost to the economy. Strong growth in India should also continue to underpin export growth. At the same time, private sector development could slow down if implementation capacity constraints are not eased and the provision of infrastructure by the public sector falls short of envisaged levels. Aid inflows — particularly current grants — are expected to decline, as Bhutan's per capita income has risen rapidly over the last decade. Medium term prospects would also suffer if public investment financing needs are not met by domestic revenue.

### **Executive Board Assessment**

Executive Directors welcomed Bhutan's strong economic performance in recent years and the steady progress on social indicators. The medium-term prospects are favorable, anchored by hydropower sector development. Notwithstanding these positive developments, the economy faces near-term challenges, especially overheating stemming from higher prices, strong economic growth and rapid credit expansion. Directors encouraged the authorities to tighten macroeconomic policies, while continuing their efforts to promote economic diversification.

Directors emphasized that tighter monetary policy should help mitigate the risk of overheating. In general, they observed that raising interest rates would help curb credit growth, which would in turn reduce balance of payments pressures. Directors also encouraged the authorities to closely monitor excess liquidity and improve the monetary transmission mechanism.

Directors welcomed increased competition in the banking system and stressed that stronger regulatory and supervision capacity would safeguard financial stability.

Directors agreed that a tighter fiscal stance is essential for sustaining macroeconomic stability and that spending and revenue reforms would bolster the fiscal framework. Establishing a nominal ceiling on current spending would help create fiscal space for capital spending and make fiscal policy more countercyclical. Directors encouraged the authorities to implement revenue measures to help finance prospective public investment. Given the concentration of debt in commercially viable hydropower projects and India's rapid energy demand growth, Directors generally agreed that Bhutan's risk of debt distress remains moderate.

In light of Bhutan's strong ties with India, Directors agreed that the peg with the Indian rupee remains appropriate and that it has served the country well. They noted that promoting the diversification of the economy and facilitating private sector development would help strengthen Bhutan's competitiveness and balance of payments position.

Directors encouraged progress towards the timely elimination of the exchange restrictions subject to approval under Article VIII and the restrictions maintained under Article XIV.

**Public Information Notices (PINs)** form part of the IMF's efforts to promote transparency of the IMF's views and analysis of economic developments and policies. With the consent of the country (or countries) concerned, PINs are issued after Executive Board discussions of Article IV consultations with member countries, of its surveillance of developments at the regional level, of post-program monitoring, and of ex post assessments of member countries with longer-term program engagements. PINs are also issued after Executive Board discussions of general policy matters, unless otherwise decided by the Executive Board in a particular case.

**Bhutan: Selected Economic and Financial Indicators, 2007/08–2011/12 1/**

Nominal GDP (2009): US\$1,265 million

Population (2009): 0.697 million

GDP per capita (2009): US\$1,815

Quota: SDR 6.3 million

	2007/08	2008/09	2009/10 Est.	2010/11 Proj.	2011/12 Proj.
<b>Real sector</b>					
Real GDP at market prices (percent change)	10.8	5.7	7.5	8.2	8.3
Consumer prices (percent change, period average)	6.3	7.1	4.8	6.8	5.8
Nominal GDP (at market prices; billions of ngultrum)	52.1	58.0	66.2	76.4	87.8
<b>General government</b> (In percent of GDP)					
Total revenue and grants	35.1	35.6	41.0	39.5	30.9
Tax revenue	9.0	9.9	13.6	13.5	12.9
Non-tax revenue	14.7	14.4	10.1	8.7	7.9
Foreign grants	11.4	11.3	17.3	17.3	10.1
Total expenditure and net lending	34.7	33.3	38.4	44.1	37.7
Current expenditure	18.7	19.1	19.5	20.1	19.4
Capital expenditure	19.2	16.9	19.5	25.2	19.6
Current balance (excluding grants)	5.0	5.2	4.1	2.1	1.4
Overall balance	0.4	2.3	2.5	-4.6	-6.8
Public sector debt 2/	66.2	67.7	70.9	81.3	95.3
<b>Monetary sector 3/</b> (Percent change, unless otherwise indicated)					
Broad money	2.3	24.6	30.1	26.7	...
Credit to private sector	39.7	29.3	41.1	45.5	...
Interest rates (end of period, in percent)					
Deposits (less than 1 year)	4.8	4.8	5.0	5.0	...
Lending	10-16	10-16	10-16	10-16	...
<b>External sector</b> (In millions of dollars, unless otherwise indicated)					
Current account balance	-27	-20	-188	-224	-313
(In percent of GDP)	-2.1	-1.6	-13.2	-14.9	-18.8
Trade balance	-72	-90	-299	-347	-347
Exports (goods)	599	516	544	549	583
(percent change)	4.4	-13.8	5.5	0.8	6.3
Imports (goods)	671	607	843	896	930
(percent change)	27.4	-9.6	39.0	6.3	3.9
Grants (current transfer)	161	151	270	291	188
Capital account balance	140	106	150	243	335
Loans (net)	25	88	47	136	160
Overall balance	45	119	94	19	22
(In percent of GDP)	3.5	9.8	6.7	1.3	1.3
Gross official reserves	646	773	868	887	909
(In months of goods and services imports)	11.4	9.9	10.5	10.3	9.6
External debt (in percent of GDP)	63.5	65.6	67.7	76.5	85.8
Of which: power sector debt	38.9	35.5	34.7	37.4	45.9
Debt service ratio (in percent of G&S exports)	14.2	13.4	14.3	13.9	14.2
Ngultrum per US\$ (period average)	40.4	47.8	46.7	...	...
<b>Memorandum items:</b>					
Electricity exports (in percent of total goods exports)	41.9	42.3	39.2	36.1	31.0
Unemployment rate (in percent) 4/	3.7	4.0	3.3	...	...

Sources: Data provided by the Bhutanese authorities; and Fund staff estimates and projections.

1/ Fiscal year begins July 1.

2/ Public and publicly-guaranteed debt, including loans for hydropower projects and the purchase of one aircraft.

3/ End-November 2010 data for 2010/11.

4/ On a calendar year basis, e.g., the entry for 2007/08 is for 2007.

**Statement by Arvind Virmani, Executive Director for Bhutan  
and Navin Kumar Choudhary, Advisor to Executive Director  
May 27, 2011**

On behalf of our Bhutanese authorities, we thank staff for a balanced and well-written report that captures the candid and comprehensive discussions during the mission. The authorities share staff's assessment on many aspects while highlighting that Bhutan's development experience warrants an appropriate tailoring of macroeconomic policy settings. Our authorities emphasize that they attach the highest value to their engagement with staff and broadly concur with the thrust of the policy advice in the staff report.

**Recent Economic Developments and Outlook**

At the outset it is important to note the distinguishing characteristics of the economic and social conditions in Bhutan. A small, landlocked country, with an economy closely intertwined with India, Bhutan is experiencing rapid and robust growth in an environment of societal well-being and political stability that now encompasses a vibrant and inclusive democracy. Real GDP growth is expected to remain 8 percent or above in the near term with an upside outlook that reflects positive spillovers from India's rapid growth and associated expansion of Bhutan's hydropower sector.

Inflation, which is essentially driven by food prices as in other emerging and developing countries, is emerging as a key risk to this outlook. Our authorities are conscious of the danger of inflation pressures getting entrenched and are accordingly monitoring the price situation with a readiness to take remedial policy action. So far, however, inflation is mainly related to food prices.

While the current account deficit has widened sharply since 2009/10, this is essentially related to imports for large expansion of hydropower capacity in response to buoyant power demand from India. As staff has noted, the current account deficit is comfortably financed by loans from India tied to hydroelectricity projects. This has shored up the foreign exchange reserves which are currently equivalent of nearly a year's imports. Going forward, our authorities expect the current account deficit to narrow as hydropower exports rise, and become self-financing.

Although signs of overheating are muted at the current juncture, our authorities are aware that it could become a policy challenge. They remain vigilant on this account and agree with staff that fiscal and broader structural reforms are essential to diversify the economy, improve absorptive capacity and enhance productivity over the medium-term. Infrastructure development has a vital role to play in catalyzing structural change and in this context, the role of fiscal policy is central.

**Fiscal Policy**

After remaining in surplus, the overall balance is likely to be negative in 2010/11 due to large increase in capital spending. An overall deficit is likely to persist in view of planned capital spending on new hydroelectric power plants in the coming years. Since these capital

spending are financed by capital grants (which are likely to grow accordingly), and are productive, our authorities do not see it as a source of concern.

Other factors which have also contributed to the deficit are the decrease in non-tax revenues, and modest increase in current spending. In this context, it is important to note that the decline in the non-tax revenues partially reflects the seasonal nature of hydropower revenue as well as their re-classification under tax revenues as stated by staff in Box 2. Also, the increase in current expenditure last year was due to a one-off salary increase based on the recommendation of a commission set up to examine the case for an increase in public sector wages, which was due for some time.

As noted by the staff, fiscal policy has been generally prudent. However, to meet the near-term and longer-term challenges, our authorities value the dialogue with staff on the desirability of introducing a nominal ceiling on current spending. For our authorities, a key medium-term macroeconomic priority is to increase tax revenue. This is important not only for fiscal sustainability and a prudent level of public debt, but also to meet the growing development needs. As noted by staff, debt sustainability risks are mitigated by the concentration of debt in commercially viable hydropower projects. Given that the energy demand from India is not likely to go down and that there is a good track record in project implementation and governance, the authorities do not see the risk of debt distress materializing. Nevertheless, they recognize the need to diversify the tax base, increase non-hydroelectric tax revenue, improve the efficiency of tax administration, reduce the volatility of tax-revenues, and improve the revenue productivity. Our authorities note staff's advice to introduce VAT, but considering that it will require considerable amount of ground work and capacity building, they look forward to further in-depth discussion in this regard.

### **Monetary, Financial and Exchange Rate Policies**

Monetary conditions are stable and the monetary policy stance has been appropriate so far, although recent inflation developments pose risks and challenges, calling for intensified monitoring, as stated earlier.

With the opening of two new banks, competition has increased in the banking sector. NPLs have declined on account of improved loan recoveries and financial stability indicators have remained largely stable. Our authorities are mindful of risk factors such as rapid growth in private sector credit and excess liquidity in the banking system, especially in the context of preserving financial stability. Our authorities will, therefore, continue to carefully monitor credit and liquidity conditions and stand ready to take appropriate policy measures to ensure macroeconomic and financial stability. The suggestion to develop an interbank market in conjunction with the finance ministry is welcome as also the deepening of macro prudential supervision, including through periodical stress tests.

As pointed out by staff, the exchange rate has evolved in alignment with macroeconomic fundamentals. The peg with the Indian Rupee is also deemed appropriate in the context of Bhutan's high degree of integration with the Indian economy. It is in this context that our authorities also emphasize reserve management policies that shore up Indian rupee reserves while flexibly managing convertible currency reserves.

**Development Perspective**

Bhutan is continuing to make rapid progress in improving all social indicators and is well on course to achieve most of the Millennium Development Goals. In this context, Bhutan's experience can be regarded as unique in at least one key aspect. Bhutan follows the concept of "Gross National Happiness" or GNH which rests on four pillars of values – sustainable and equitable development, good governance, environmental conservation, and cultural preservation and promotion. These pillars are divided into nine domains which, in turn, are broken down to 72 measurable variables. For example, one variable reflects Bhutan's commitment to maintain at least 60 percent forest cover forever. While keeping GNH as central to its development planning, our authorities are vigorously diversifying the economy.

The most critical sector for Bhutan's development is the hydropower sector; the developments therein have been presented well in Box-1 of the Staff Report. We would like to inform that projects under construction are well on schedule, with a few ahead of timelines. Another sector where our authorities are putting in substantial effort is the tourism sector. They are aiming to attract one hundred thousand visitors in the next couple of years, up scaling from the current level of thirty five thousand tourists a year. They are focused on diversifying tourism from cultural to nature-based products, opening of new areas and strengthening infrastructure and connectivity therein.

In conclusion, our Bhutanese authorities look forward to sustained support and engagement with the international community as they strive to achieve their developmental goals. They regard as vital to this effort sound macroeconomic advice from the Fund on a regular basis and support in terms of capacity building in the Central Bank and other institutions through technical support and training.