

## **Bhutan: 2009 Article IV Consultation—Staff Report; Staff Supplement; and Public Information Notice on the Executive Board Discussion**

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 2009 Article IV consultation with Bhutan, the following documents have been released and are included in this package:

- The staff report for the 2009 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on October 27, 2009, 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 December 7, 2009. 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.
- A Public Information Notice (PIN).

The document listed below has been or will be separately released.

Statistical Appendix

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INTERNATIONAL MONETARY FUND

BHUTAN

**Staff Report for the 2009 Article IV Consultation**

Prepared by the Staff Representatives for the 2009 Article IV Consultation with Bhutan

Approved by Laura Papi and Dhaneshwar Ghura

December 7, 2009

- **Consultation and team.** The 2009 Article IV consultation discussions with Bhutan were held in Thimphu during October 15–27, 2009. The staff team included Ms. Ramakrishnan (head), Ms. Topalova, and Mr. Guo (all APD). Mr. Krishnan (Senior Advisor, OED) participated in the policy discussions. The team met with Prime Minister Thinley, Royal Monetary Authority Managing Director Tenzin, Minister of Finance Norbu, other senior officials, and private sector and donor representatives.
- **Context of past surveillance.** Bhutan is on a 24-month consultation cycle. In line with past advice, the authorities have taken measures to reduce excess liquidity in the banking system, strengthened prudential regulations by establishing limits on sectoral exposures, done groundwork for the issuance of T-bills and competition in the financial sector, maintained current fiscal surpluses, and improved data collection and dissemination. Constructive dialogue is ongoing through technical assistance in fiscal, monetary, and statistical areas.
- **Exchange rate 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 Article XIV, Section 2. Bhutan also maintains exchange restrictions subject to Fund approval under Article VIII, Section 2(a).
- **Economic statistics.** Data collection has improved and its provision is broadly adequate for surveillance. The authorities are also on track to subscribe to the IMF's General Data Dissemination Standards, which would help increase data transparency. Some shortcomings continue, such as the long lags in the availability of fiscal and monetary data. Large errors and omissions in the external sector also preclude a more accurate assessment of external flows.

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## EXECUTIVE SUMMARY

***Political and economic background:*** Bhutan's historic transformation into a constitutional monarchy was successfully completed in July 2008. With prudent economic management and strong donor support, the 9<sup>th</sup> Plan achieved many successes including strong growth, hydropower sector development, poverty reduction, and improved social indicators. The ongoing 10<sup>th</sup> Plan has a broad-ranging development agenda to lower poverty through, inter alia, hydropower, industrial, and private sector development.

***Outlook and risks:*** Growth is expected to average about 6½ percent in the medium term, with hydropower being the key contributor. Inflation is likely to continue to trace India's consumer prices, averaging about 6 percent. The risks are broadly balanced: faster private sector growth could result in higher productivity but debt sustainability and financial sector vulnerabilities are downside risks.

***Fiscal and debt sustainability issues:*** With the sharp rise in the 2009/10 budget deficit, spending prioritization with a near-term tightening bias is needed to avoid stoking excess demand. In the medium term, revenue expansion and prudent expenditure planning are needed to limit domestic debt buildup. Although the debt sustainability analysis indicates that most of the indicative thresholds are breached, staff deem the risk of distress as moderate given several mitigating factors, including the concentration of debt in commercially viable hydropower projects.

***Monetary and financial sector:*** It was agreed that the monetary stance needs to be consistent with the exchange rate peg. Stepped up issuance of RMA- or the forthcoming T-bills at market-driven rates should help mop up the remaining excess liquidity and improve monetary transmission. Strengthening banking sector supervision is critical given the jump in non-performing loans and the entry of new banks.

***External sector:*** The one-to-one peg of the Bhutanese ngultrum to the Indian rupee remains appropriate and the exchange rate level is broadly in equilibrium. There are recurring pressures on the Indian rupee reserves due to mismatches in rupee inflows and outflows, and the two credit lines with India play a useful role in easing these shortfalls. Adopting clear guidelines for reserve management to align the currency composition of reserves with external liabilities and import demand is also important.

***Private sector development.*** Providing job opportunities for the projected large increase in the labor force requires measures to improve the skills and employability of the labor force. To improve the mix of financing available to the private sector, donor-supported SME-lending schemes could be considered. A commercial paper market to facilitate transparent inter-corporate borrowing would also help expand the pool of lenders.

## I. BACKDROP

1. **Bhutan's historic transformation into a constitutional monarchy was successfully completed in July 2008.** Elections for the upper house took place in December 2007 and elections for the 47-member lower house were held in March 2008. On July 18, 2008, the new parliament formally adopted the Constitution, completing the transition process to a parliamentary democracy.

2. **Bhutan's economic performance has been strong over the last several years.**

Rapid growth has been supported by prudent economic management, sustained donor support, and the smooth political transition.<sup>1</sup> The 9<sup>th</sup> Plan (2002-2007) achieved many successes, including rising national income, significant poverty reduction, and improvements in several social indicators.

As a result, Bhutan is on track to achieving its Millennium Development Goals. The 10<sup>th</sup> Plan (2008-2013) has now embarked on a wide-ranging development agenda to lower poverty through revitalizing industry,

enhancing infrastructure, balancing regional development, and fostering private sector growth.<sup>2</sup> Substantial expansion of the hydropower sector is also envisaged, with a goal of increasing electricity generation capacity by 10,000 MW by 2020.<sup>3</sup> The challenge is to achieve these goals while sustaining Bhutan's macroeconomic stability.

Poverty and Social Indicators		
	2000	2007
Population below poverty line (%)	36.3	23.2
GNI per capita, Atlas method US\$	730	1900 2/
Gross primary enrollment 1/	72	106
Human development index	0.58 3/	0.61 4/
Infant mortality (per 1,000 live births)	68.4	56.2

Source: Various U.N. Publications  
 1/ Percent of school age population  
 2/ 2008  
 3/ 2003  
 4/ 2006

## II. ECONOMIC DEVELOPMENTS

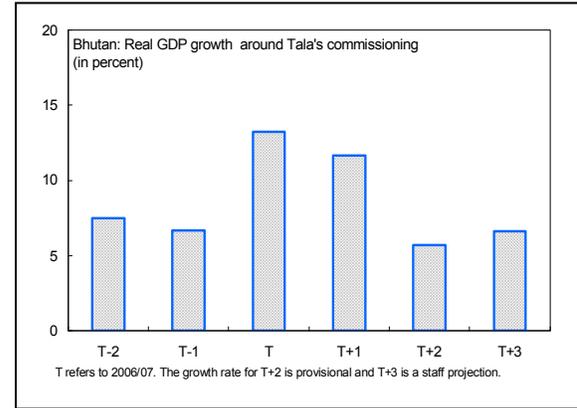
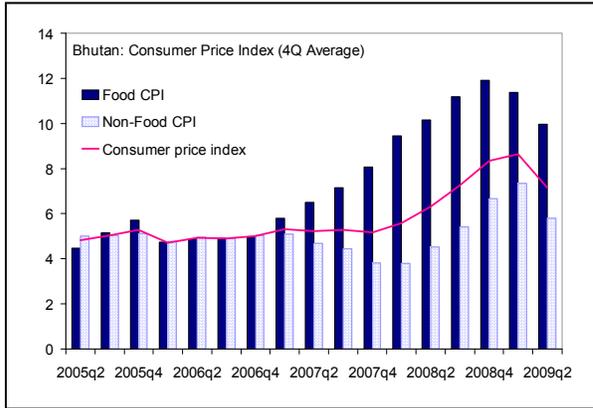
3. **Economic growth has been robust and inflation mostly stable.** During the 9<sup>th</sup> Plan, real GDP growth averaged about 9½ percent, as economic output was substantially boosted by the hydropower sector. After the spike in growth in 2006/07 and 2007/08, fuelled by the commissioning of the Tala hydropower station (Figure 1), the rate of economic expansion decelerated in 2008/09 to an estimated 5.7 percent, reflecting the high base effect and constant electricity production. Given Bhutan's limited exposure to global financial markets and the concentration of electricity exports to India, the economic impact of the

<sup>1</sup> Bhutan's development partners, including the World Bank and the Asian Development Bank, have helped Bhutan achieve its 9<sup>th</sup> Plan goals with wide-ranging lending and non-lending programs, particularly in the areas of fiscal and public financial management, infrastructure expansion, financial sector development, and overall capacity building (Informational Annexes II and III provide more details).

<sup>2</sup> The 10<sup>th</sup> Five Year Plan was approved by the Executive Boards of the IMF and the World Bank in April 2009 as Bhutan's Poverty Reduction Strategy paper.

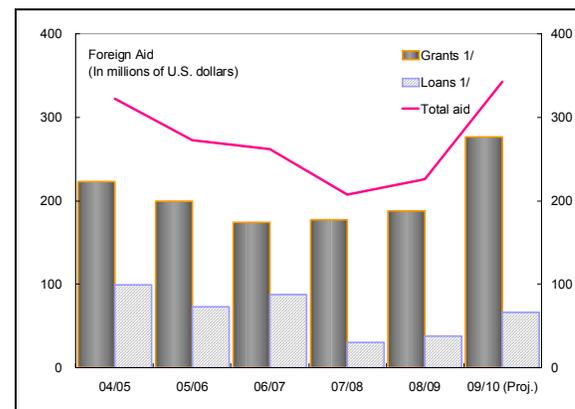
<sup>3</sup> For a detailed discussion of the impact of the hydropower sector on Bhutan's economy, see IMF Country Reports No. 07/349 and No. 07/350.

global financial crisis was small and limited to the tourism sector and a few manufacturing industries (Box 1). With strong trade ties with India, inflation has been consistent with India's consumer price index (CPI) developments—the 9<sup>th</sup> Plan period's average inflation rate was about 5 percent, although it increased subsequently reflecting the increase in food and fuel prices in 2008.



4. **Supported by the fiscal anchor to contain current spending below domestic revenue, the government has coped with volatility in both revenue and expenditure.** Despite the uncertainty arising from foreign aid flows, a small current operating surplus (excluding grants) and an overall deficit of 2.7 percent of GDP were achieved in the 9<sup>th</sup> Plan period (Figure 2). The provisional estimates for 2008/09 also indicate an overall fiscal surplus. The 2009/10 budget, however, envisages a sharp increase in the fiscal deficit to 7.6 percent of GDP (and a significant reduction in the current operating surplus). This deterioration in the overall fiscal position relative to the provisional 2008/09 outturn reflects a sharp increase in current spending (due to the 35 percent hike in civil servants' wages (Box 2) and higher expenditure on goods and services), a jump in capital spending, and stagnant domestic revenue.<sup>4</sup> Thus, domestic financing is budgeted to climb to 7.1 percent of GDP, from an estimate of close to zero in 2008/09.

5. **Substantial aid flows have resulted in balance of payments surpluses and foreign exchange reserves accumulation.** Bhutan's large and volatile trade deficits arising from hydropower-related imports have been offset by sizeable foreign aid inflows, leading to overall balance of payments surpluses averaging about 7 percent of GDP over the last 4 years. These surpluses have resulted in an accumulation of



<sup>4</sup> The budget estimates do not include the additional spending needed for reconstruction following the series of natural disasters in 2009 (see footnote 9 and Paragraph 11).

### **Box 1: Bhutan's Cross-country Linkages**

**Bhutan has extensive economic linkages with India, while trade with the rest of the world remains limited.** As a small, land-locked country with only the border with India easily accessible, Bhutan naturally has much closer economic ties with India than any other country. Bhutan imports a significant fraction of consumption and investment goods from India. In combination with a dual-currency system, in which the ngultrum is pegged at par to the Indian rupee, CPI in Bhutan tracks price development in India closely. The hydropower sector—the driver of Bhutan's strong economic growth—relies almost entirely on India for both export market and financing. Overall, India accounts for more than 90 percent of Bhutan's exports and 75 percent of imports. While Bhutan will integrate more into the world economy, especially if WTO accession is achieved, India is likely to remain its dominant economic partner.

**The central role of the hydropower sector and increasing electricity demand imply that Bhutan is largely shielded from global economic fluctuations, including those of India.**

Electricity exports to India are about 50 percent of Bhutan's gross exports. The remainder are mostly re-exports and processing trade that have little value-added from Bhutan. Electricity shortage in India combined with negotiated long-term tariffs have secured a stable export market for Bhutan's hydropower sector. It has been, therefore, possible for Bhutan's economic growth to remain strong amid the global crisis.

**Bhutan, nevertheless, has not been fully immune to the global crisis as evidenced by the tourism sector and some manufacturing industries.** Tourism had experienced over 30 percent average annual growth between 2005 and 2008. By June 2009, however, the number of tourists decreased 7.3 percent and tourism receipts dropped more than 10 percent. The steel and ferro-alloy industries, which take advantage of cheap energy in Bhutan and had flourished during the commodity boom, also suffered considerable losses when commodity prices tumbled. As a result, financial institutions that had extended loans to these industries incurred considerable NPLs. Fortunately, the spillover from the crisis appears to be limited to these two sectors and the impact on the overall economy remains small.

**Heavy reliance on external financing makes Bhutan vulnerable to a slowdown of capital inflows.** Bhutan's hydropower projects are mostly financed by grants and loans from the Government of India. Other capital expenditures are also supported predominantly by grants from donor countries and international organizations, which have financed on average 35 percent of Bhutan's annual budget over the last five years, especially capital expenditure. While these official inflows are generally stable and secure, Bhutan's development agenda would be curtailed, the envisaged hydropower projects may need to be delayed, and fast economic growth could temporarily come to a halt if foreign aid falls short.

**Moreover, volatile disbursements of foreign aid and lack of sufficient clarity about medium-term donor commitment also complicate Bhutan's fiscal and monetary management.** The overall fiscal balance and international reserves have experienced considerable swings, in part due to mismatch between disbursements of foreign grants and loans and actual expenditure. The absence of a clear commitment from the donor community over a 3-5 year horizon also renders it harder for the authorities to determine the resource envelope and improve the implementation of medium-term budget planning.

## Box 2. Wage Developments and Issues

**There have been three major wage hikes for civil servants since 2005.** Civil servant pay was raised by 45 percent in 2005, followed by a further average 10 percent increase in 2006, and most recently, an across-the-board 35 percent wage increase in the form of allowance effective January 1, 2009. Similar to the latest hike, the first two pay hikes also appear to have coincided with revenue cycles associated with hydropower projects—Chukha tariffs were revised in 2005 and Tala came on stream in 2006. Meanwhile, a scarcity allowance has been introduced in the remuneration of professionals and technicians on the government payroll for whom there is a deemed shortage, and the allowance was increased by 45 percent in 2007.

**Past pay revisions, while significant and infrequent, were in line with economic growth and inflation.**

Nominal wage bill for civil servants increased by about 50 percent between 2004/05 and 2007/08, and nominal GDP grew by more than 55 percent during the same period. As a result, government expenditure on wages and salaries as a share of GDP dropped to 6.8 percent in 2007/08 from 7.2 percent in 2004/05.

**The increase in 2009 may cause temporary pressures on the budget.** The intent was, according to the First Pay Commission report, to attract, retain and motivate the professionals, and to continuously raise the professionalism and efficiency of the bureaucracy. Staff projects the government to spend 9.2 percent of GDP on wages and salaries in the current fiscal year, 2.1 percentage points higher than the average in the last decade, and to remain elevated as a share of GDP in the next few years.

**While the average civil service wage does not appear to be very high, it is relatively high as a share of GDP and government current expenditures compared with its peer group.** After the 2009 pay raise, average wage income of civil servants is estimated to be about 295 percent of GDP per capita, compared to an average of 300 percent in 11 Asian countries

	In percent of GDP	In percent of total central government current expenditures	In percent of total central government outlays
Bhutan			
2000/01-2007/08	7.1	39.2	18.7
2008/09-2014/15 (proj.)	8.4	43.2	23.2
Low-income and lower-middle-income countries 1/			
Median	5.7	30.3	24.4
Mean	6.8	33.1	26.9

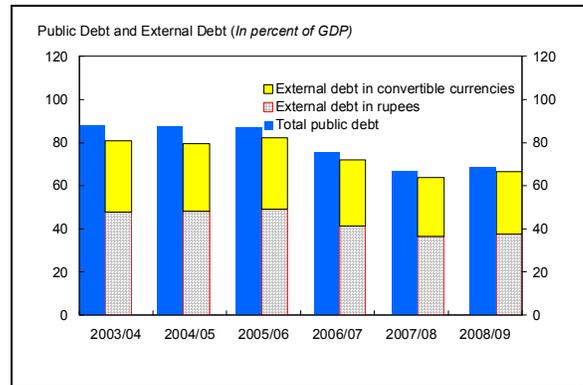
Source: Government Finance Statistics database (IMF); World Economic Outlook database (IMF); and Staff calculations  
1/ Data covers 53 countries during 1991-2008, subject to availability.

and 570 percent in 20 African countries reported in a World Bank survey.<sup>1</sup> The pay and allowances of Bhutan's corporate sector, among which most high performing companies are government-owned entities that have monopoly power, are about 15 percent higher than comparable civil service positions. However, compared to the median level of 53 low-income and lower-middle-income countries, Bhutan spent 1.4 percent of GDP more on wages and salaries during 2000–2008. The recent wage hike is projected to increase public expenditure on wages and salaries by another 1.3 percent of GDP in the next five years. But as a share of total government outlays, Bhutan spent a smaller fraction on wages and salaries compared to the same group, reflecting a large overall government spending agenda under the 9<sup>th</sup> and 10<sup>th</sup> five-year plans, much of which is capital expenditures that are aimed to improve infrastructure.

**Also, Bhutan's wage structure is overly compressed.** The compression ratio of civil servant wages is at 7, far less than the normal threshold of 12, implying an overly compressed structure. A moderate income level and a compressed structure could imply underpaid high-skilled workers in the government and overpaid low-skilled workers.

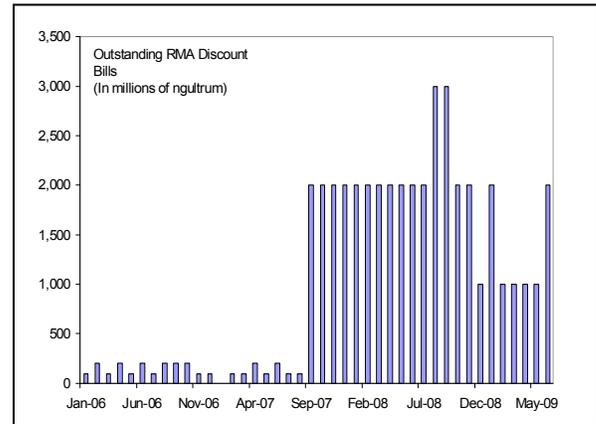
<sup>1</sup> Schiavo-Campo, S., G. de Tommaso, and A. Mukherjee (1997), *An International Statistical Survey of Government Employment and Wages*, Policy Research Working Paper 1806 (Washington: The World Bank).

international reserves, which now stand at \$758 million (11 months of imports of goods and services).<sup>5</sup> However, the convertible currency versus Indian rupee composition of reserves continues to be imbalanced due to strong rupee demand from rapid credit growth, development spending, and large hydropower-related imports. As a result, out of the two rupee credit lines with India totaling Rs. 7 billion, over one half has been drawn down as of September 2009.<sup>6</sup>



External debt has declined by about 15 percentage points to 66½ percent of GDP between 2005/06 and 2008/09 following the start of debt repayment for the Tala hydropower project.

6. **Measures taken by the Royal Monetary Authority (RMA) have contributed to lowering excess liquidity.** The banking system's excess liquidity is about 7.2 percent of assets—significantly lower than the 25 percent in June 2006 (Figure 3). The reduction was facilitated by the increase in the cash reserve requirement (CRR) from 13 to 18 percent during 2007/08, a hike in the RMA discount rate from 3½ to 6 percent, and an increase in the volume of RMA discount bills. New procedures for a daily sweep of the balances of government accounts in commercial banks to the RMA also lowered deposits in the banking system. Moreover, accelerated credit expansion by the bank where excess liquidity has historically resided also contributed to the reduction.



7. **With rapid credit growth, financial sector vulnerabilities are on the rise.** Credit growth averaged about 30 percent over the last decade, and now there are signs of deteriorating asset quality. Banks' non-performing loans (NPLs) more than doubled to 18 percent of total loans between December 2008 and June 2009, reflecting the impact of volatile commodity prices on select manufacturing industries.<sup>7</sup> Moreover, credit is

<sup>5</sup> Bhutan's additional SDR allocation was entirely used to build its reserve cushion.

<sup>6</sup> Bhutan has two rupee credit lines with India—one with State Bank of India for Rs. 4 billion at 9.2 percent interest rate, and the other with the Government of India for Rs. 3 billion at 5 percent interest rate.

<sup>7</sup> The setting up of ferro-alloy and steel industries, which take advantage of Bhutan's lower electricity prices, along the Indian border has raised considerably banks' exposure to these sectors. As these industries were adversely affected by the decline in commodity prices, banks' NPLs rose in tandem. The contribution of these industries to the whole economy, however, is small.

concentrated in personal loans, construction, trade and manufacturing.<sup>8</sup> Banks also have maturity mismatches due to the long term-structure of these loans and the short-term corporate deposits that dominate the funding base.

### III. OUTLOOK AND RISKS

8. **Bhutan's growth outlook remains bright.** Real GDP growth for the remainder of the 10<sup>th</sup> Plan period is projected to be about 6½ percent: the hydropower sector remains the key driver given the planned expansion in electricity generation capacity.<sup>9</sup> In the construction phase, the projects will boost growth via the construction and services sector; once on stream, they will contribute through power generation. Inflation is expected to continue to trace India's CPI, averaging about 6 percent for the remaining years of the 10<sup>th</sup> Plan period. As in previous hydropower cycles, the current account deficit is estimated to widen significantly over the medium term, as new hydropower projects begin; however, adequate external financing is likely to result in overall surpluses and adequate international reserve cover.

Bhutan: Summary of Medium-Term Staff Projection

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
	9th plan		10th five-year plan				
	(In percent changes)						
Real GDP growth	13.2	11.7	5.7	6.6	6.7	6.4	6.2
Consumer prices (period average)	5.2	6.3	7.2	8.4	6.3	4.5	4.2
Fiscal	(In percent of GDP)						
Current balance (excluding grants)	5.5	5.1	5.2	0.8	2.3	2.8	2.5
Overall balance	0.6	0.7	2.2	-3.3	-1.9	-1.5	-1.8
Budgetary grants	13.5	11.5	11.4	14.1	13.6	13.1	12.8
Public debt	75.6	66.6	68.7	72.9	80.1	90.2	100.7
External	(In millions of U.S. dollars unless otherwise indicated)						
Current account balance	145	-27	-121	-100	-206	-310	-366
(In percent of GDP)	14.4	-2.1	-10.1	-7.4	-14.3	-20.0	-21.9
Reserve	600	646	758	842	924	1012	1101
(In months of goods and services imports)	9.4	11.3	11.3	10.8	10.2	10.1	9.8

9. **The risks to this outlook are broadly balanced.** On the upside, faster private sector growth, including in the tourism sector, could result in higher productivity and growth without inflationary pressures. On the downside, however, achieving the goals of the 10<sup>th</sup> Plan is subject to potential overheating due to spillovers from the hydropower and development spending as well as rapid credit growth, financial sector vulnerabilities, and concerns about debt sustainability. The authorities agreed with the overall outlook and are mindful of these constraints. They also stressed that tourism is likely to be a strong growth sector—Bhutan lags in tourist numbers relative to its peer group, and the government is pursuing policies for its development.

<sup>8</sup> The RMA's prudential regulations require a 30 percent ceiling on exposure to any single sector.

<sup>9</sup> The earthquake in September 2009 disrupted the lives of many households and the price tag for reconstruction is estimated to be about 4 percent of GDP. However, given limited disruption in economic activity from the earthquake, it is unlikely to have a significant growth impact.

Bhutan and Comparator Countries: Key Tourism Indicators in 2007

	Bhutan	Seychelles	Maldives	Mauritius	Jordan	Croatia
Tourist arrivals ('000)	21	161	676	907	3,430	9,307
Tourism receipts (US\$ millions) 1/	30	285	287	1,299	2,312	9,254
(In percent of GDP)	2.5	31.2	27.2	18.8	13.6	15.8
Memorandum Items:						
Population (millions)	0.66	0.09	0.34	1.26	5.72	4.44
Per capita GDP (U.S. dollars)	1,905	10,728	3,056	5,494	2,971	13,205

Sources: UNWTO World Tourism Barometer, Jan. 2009; IMF World Economic Outlook Oct. 2009; and staff calculations

1/ Data for the Maldives refer to 2005.

#### IV. POLICY DISCUSSIONS

10. **Against this background, discussions and recommendations focused on:** (i) fiscal challenges including the near-term policy stance and debt sustainability; (ii) liquidity management in the banking sector and financial sector vulnerabilities; (iii) international reserve management; and (iv) private sector development. There was broad agreement between the staff and authorities on the main policy issues and recommendations.

##### A. Fiscal Policy and Debt Sustainability

11. **Careful fiscal management with a near-term tightening bias is necessary to ensure macroeconomic stability.** The budgeted fiscal deficit for 2009/10 exceeds the government's implicit policy to limit the deficit to under 5 percent of GDP. Though staff projects that the actual outturn may be substantially lower than budgeted,<sup>10</sup> a sharp deficit increase risks stoking excess demand given the already strong economic growth, and putting further pressure on rupee reserves. Thus, vigilance in fiscal policy and spending prioritization are critical, especially in light of the additional spending needed for reconstruction following the series of natural disasters in 2009—the estimated cost of the September earthquake alone is Nu. 2.5 billion (about 4 percent of GDP). The authorities noted that the political transition to democracy is creating spending pressures, but agreed that spending prioritization was needed given the resource constraints and their commitment to maintain a surplus on the current domestic balance. They, however, also noted their past track record of spending: only about 80 percent of their budgeted capital expenditure is typically spent because of implementation capacity constraints. This pattern is likely to continue in the near term, even though steps are being taken to ensure better budget execution.

<sup>10</sup> Staff projects the 2009/10 deficit to be 3.3 percent of GDP: capital spending is expected to reach 90 percent of the budgeted amount (slightly more than historical outturns); implementation capacity constraints are likely to require resource reallocation from development to earthquake-related reconstruction projects. Also, the Small Development Projects grant from India—which is pending finalization of the project list—is expected to materialize.

12. **In the medium term, the challenge is to limit domestic financing while pursuing the 10<sup>th</sup> Plan goals.** While the anchor to contain current spending at or below domestic revenue provides important fiscal restraints, both revenue reforms and careful expenditure planning are needed to limit domestic financing to avoid potentially crowding out private investment and building-up the already high public debt. Staff recommended the following medium term fiscal stance to ensure fiscal sustainability:

- Measures to maintain domestic revenue at about 22 percent of GDP are desirable.<sup>11</sup> Tax base expansion, including the introduction of a value-added tax to replace the existing sales tax, will contribute to better domestic revenue generation. Staff also stressed that tax incentives for private sector development, if necessary, need to be designed to boost growth and employment, while minimizing economic distortions and revenue losses.<sup>12</sup>
- Keeping overall outlays (excluding net lending) at about 40 percent of GDP calls for strengthened medium-term budgeting and expenditure smoothing. This includes avoiding procyclical spending, especially on wages—civil service pay revisions in line with the overall budgetary envelope would help avoid short-term fiscal pressures arising from ad hoc adjustments. Weeding out low priority spending will also help create fiscal space for vital expenditures necessary to achieve the development goals (e.g., health, education, and infrastructure). Aligning these priorities with donor support is also needed to limit domestic financing.
- The above revenue and outlay targets combined with foreign grants of about 13½ percent of GDP and external borrowing of 3½ percent of GDP per year, which have already been committed by foreign donors, could limit domestic financing to about 2 percent of GDP over the medium term. Such a medium term fiscal stance would prevent substantial build-up in domestic public debt and leave sufficient resources for private sector investment.

13. **The authorities are keenly aware of the need to expand the revenue base and limit domestic debt.** They are working on measures to broaden the sales tax base, rationalize indirect tax rates, and improve tax administration. Harmonization of personal, business and corporate income tax rates is also under consideration. On wages, however, they consider linking wage increase to specific parameters as limiting their flexibility on the timing of the pay raises. They also noted that very little domestic borrowing actually materializes in

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<sup>11</sup> Despite tax reforms, Bhutan's revenue-to-GDP ratio is projected to remain flat over the medium term as the increase in non-hydropower sector revenues is offset by the decline in hydropower sector-related revenues. In particular, (i) no new power sector projects are expected to come on stream over this period; (ii) both income tax and dividend payments from hydropower projects are fixed in nominal terms and thus decline as share of GDP; and (iii) other revenue—the bulk of which are receipts for making interest payments on power sector loans and fixed in nominal terms—also decrease as a percent of GDP.

<sup>12</sup> For example, investment focused incentives such as investment tax credits or accelerated depreciation are more effective than targeted tax holidays to specific sectors.

Bhutan relative to the budget due to underexecution of capital spending. However, they also agreed that this is not cause for complacency given the rising spending pressures.

**14. There was agreement that stronger fiscal management requires better cash management and improved implementation of the multi-year budgetary framework.**

The planned issuance of T-bills will help tide over temporary cash shortfalls arising from the timing and seasonality of tax and non-tax receipts and of foreign aid disbursements. Its successful implementation, however, requires developing a cash forecasting framework based on comprehensive and high-frequency data on government's cash inflows and outflows. Over the medium term, the multi-year budgetary framework could be enhanced by continued efforts to update and analyze in a timely manner the Budget Policy and Fiscal Framework Statement. Better donor coordination, including expanded organization capacity in the government, would also help achieve greater predictability of financial flows.

**15. The debt sustainability analysis (DSA) shows that most indicative debt thresholds are breached, although several factors mitigate the risk of distress.** Based on the joint IMF-World Bank DSA, the present value of public debt is projected to peak at about 130 percent of GDP in 2014/15—of which external debt is 120 percent of GDP—before resuming a steady downward path. These levels, based on Bhutan's LIC-DSA thresholds, would indicate a high risk of debt distress. However, there are strong mitigating factors: the concentration of debt in commercially viable hydropower projects, Bhutan's strong project implementation track record, high level of foreign reserves, and the close ties with India—its main debtor—help lower the risk to a moderate level.<sup>13</sup> Nevertheless, under these circumstances, staff noted that a cautious and gradual approach to allowing external commercial borrowing may be necessary to avoid exacerbating the external debt situation.

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

**16. The RMA agreed that monetary policy consistency with the rupee peg is critical for economic stability.** Staff urged adjustments to the monetary conditions to avoid an overly loose monetary stance and to ensure that interest rates are more aligned with those in India. For now, interest spreads with India are consistent with historical levels, although this comes from India's interest rate cuts in response to the financial crisis rather than increases in the RMA's discount bill rate. Thus, vigilance and close monitoring of monetary developments are needed, particularly if monetary stance in India shifts due to rising inflation or if there is significant pressure on Bhutan's net foreign reserves.<sup>14</sup>

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<sup>13</sup> Bhutan maintains close economic and political ties with India, which has been both the main provider of financing for hydropower projects and the main consumer of the electricity produced. The two countries are in a continuous dialogue on the financial and technical aspects of the projects, thus mitigating commercial risks.

<sup>14</sup> Net foreign reserves are the gross foreign reserves minus the amount drawn from the two rupee credit lines.

**17. The authorities are taking steps to manage liquidity to strengthen monetary transmission, reduce excess liquidity, and improve financial sector resource allocation.**

- The RMA agreed with staff that stepped up issuance of RMA- or T-bills is necessary to absorb the remaining excess liquidity, and noted that the impending government T-bill issuance with market-driven interest rates will be used for that purpose.<sup>15</sup> They also noted that as new banks enter (see below) and attract some of the deposits in the already existing banks, excess liquidity in the financial sector should decline. As for monetary policy transmission, the authorities expect the discount rate on the T-bill to be an effective signal of the policy rate and to help guide deposit rates. Moreover, the planned creation of a repo facility would facilitate moving toward market-based lending rates. Staff also urged implementing a liquidity monitoring and forecasting framework, for which better coordination with the government is needed to keep close track of cash flows.
- The authorities also agreed that developing a formal interbank market could reduce the inefficiencies arising from the ongoing mismatch between supply and demand of funds across financial institutions and strengthen financial intermediation. The availability of T-bills for use as collateral for interbank transactions should help develop such a market and redistribute liquidity among the financial institutions.

**18. Safeguarding financial sector stability is a top priority.** Staff supported the imminent entry of new financial institutions—they will bring in much needed competition, improve financial intermediation and quality of services, and help develop an interbank market.<sup>16</sup> However, there is also a risk that credit might grow even faster as banks compete, potentially compromising asset quality. With credit risk already being the biggest banking sector risk (Box 3 provides a sensitivity analysis of the two existing banks), strengthening supervision and procedures to safeguard credit quality are critical. A strong risk management process is important to identify, evaluate, monitor, and control risks from bank operations—including credit risk—and assess banks' overall capital adequacy in the context of such risks. More efficient financial information disclosure, including the planned automation of off-site supervision would also help. Licensing for new financial institutions should include an assessment of ownership and governance. The authorities agreed that supervision had to be enhanced to ensure financial sector stability. They, however, also noted that they expect significant improvement in loan performance by year end as the extended loan grace periods terminate for the adversely affected manufacturers and loan servicing starts again. Moreover,

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<sup>15</sup> The RMA normally issues 91-day bills. In October 2009, 30-day bills were issued on a one-time basis at a discount rate of 4.5 percent due to delays in the planned issuance of the T-bills. The monthly auctioning of the 91-day T-bills will replace the current RMA bills. A cost-sharing arrangement with the government will be introduced, whereby the latter will bear the interest cost on T-bills issued for meeting fiscal resource gaps.

<sup>16</sup> In-principle approvals to three banks and one insurance company were made in December 2008. The latter was issued a license in August 2009; licenses for two banks are expected to be approved early next year.

the seasonality of NPLs in Bhutan combined with the resurgence of commodity prices would also help moderate the risk of high NPLs.

### C. External Sector Issues

19. **The authorities agreed with the assessment that the exchange rate is broadly in equilibrium, and the ngultrum's parity with the Indian rupee is appropriate.** Given the strong economic ties with India, the peg has served Bhutan well in anchoring inflation expectations, and the real exchange rate between the two countries has fluctuated within a narrow band (Box 4). Staff advised appropriate adjustments to broader macroeconomic policies to avoid undue pressures on the exchange rate and overall reserves.

20. **The frequent pressure on rupee reserves is a concern to the authorities, despite the comfortable level of convertible currency reserves.** The two rupee credit lines play a useful role in addressing short-term mismatches in rupee inflows and outflows and lowering associated vulnerabilities. Even though rupee inflows are expected to rise from the hydropower projects in the pipeline, staff stressed that an appropriate macroeconomic policy stance is essential to avoid inducing discretionary rupee outflows. Diversifying exports to enhance rupee inflows beyond the hydropower sector, and close monitoring of rupee flows would also help. More generally, staff encouraged adopting clear guidelines for reserve management to actively align the currency composition of reserves with external liabilities and import demand, specify portfolio performance benchmarks, and revisit the use of 12-month import coverage as the numeraire for reserve adequacy.

21. **On the plans for trade liberalization,** Bhutan is at an advanced stage of the WTO accession process. The authorities informed that a decision on WTO accession could be taken in 2010. On the tariff structure, the authorities are working on rationalizing the number of slabs, which will reduce the incentives for misclassification of goods by importers.<sup>17</sup>

22. **The authorities continue to be concerned about the likely outflow of convertible currency reserves if they were to accept the obligations under Article VIII, Sections 2, 3, and 4.** The authorities reiterated that continued quantity restrictions on current transactions were needed since Bhutan's international reserves were built on unpredictable aid flows rather than export receipts, and liberalization of current account transactions could

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<sup>17</sup> The current tariff structure has 8 slabs ranging from 0 to 100 percent. Most imported goods are in the 5, 10 and 20 percent slabs.

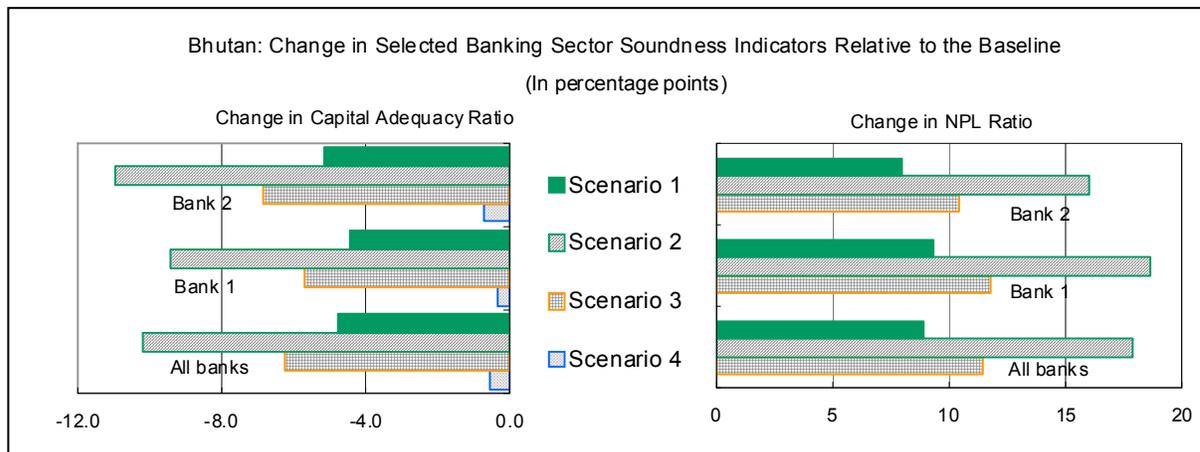
### Box 3. Banking Sector Sensitivity Analysis

**Managing credit risks is a significant challenge.** Loans account for about 50 percent of total assets in the banking system. Loan quality sharply deteriorated in 2009—NPLs have more than doubled to 17.9 percent of total loans by June 2009. Of the total NPLs, nearly 80 percent are classified as substandard. More than a quarter of the NPLs arise from the manufacturing sector largely because of the impact of lower commodity prices on a few industries (ferro-alloy and steel); tourism and construction add an additional 18 percent each.

**To assess the impact of this risk, staff and the RMA ran sensitivity tests to examine their impact on key banking system soundness indicators.** A stress-testing framework was applied to the two banks. Several scenarios were chosen to test for systemic weakness, including: (i) a 50 percent increase in NPLs proportional to existing (baseline) NPLs (scenario 1); (ii) a 100 percent increase in NPLs proportional to the baseline NPLs (scenario 2); (iii) 30 percent of performing loans (PLs) in the manufacturing sector turning into NPLs, and 10 percent turning to NPLs in the construction, tourism, and personal loan sectors (scenario 3); and (iv) ngultrum appreciation by 20 percent vis-à-vis the U.S. dollar (scenario 4). The baseline risk-weighted capital adequacy ratio (CAR) for the banking system at end-June 2009 was 14.5 percent.

**The main results of the sensitivity analysis are:**

- Credit risk remains the main risk faced by Bhutanese banks, particularly in light of the recent surge of NPLs due to exposure to the noted manufacturing industries, fast loan growth and concentration of credit in a few sectors. The CAR could drop as much as 11 percentage points for one bank and 10.2 percentage points for the banking system as a whole under the most extreme scenario. Overall, if the NPLs continue to rise at the pace experienced since December 2008 or if the risks under the third scenario materialize, at least one bank would become undercapitalized and fall below the prudential minimum.
- Bank 2 is more vulnerable to the credit and exchange rate risks. Its CAR could decline substantially if NPLs rise in construction and personal loans given its higher exposure to these sectors, and if the exchange rate appreciates given its larger positive net open position. Also, Bank 2 has a much lower buffer stock of capital and is thereby more vulnerable to adverse shocks.
- Potential contagion between the banks (or in the financial sector more generally) is limited by the low level of interbank lending. However, confidence effects could spread risks from one institution to the rest of the financial system. Liquidity risks in the banking system are also low given the large role that deposits play as a funding source and the limited competition, although this could change with the entry of new banks.



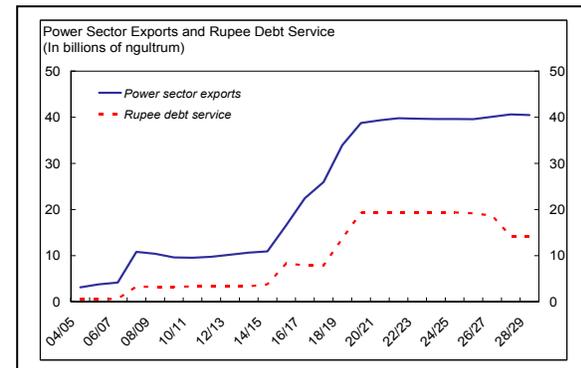
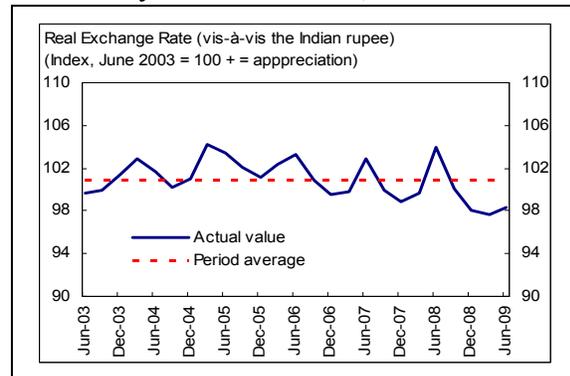
**These results are subject to caveats.** The estimated decline in the CAR and increase in NPL ratio would be larger if the required provisioning on the additional NPLs is higher. On the upside, the seasonality of NPLs in Bhutan indicates that NPLs may come down quite significantly by year end and the resurgence of commodity prices may help recover some of NPLs to the steel and ferro-alloy industries. High collaterals may also alleviate losses associated with NPLs.

#### Box 4. Exchange Rate Assessment

- The one-to-one peg with the Indian rupee has served Bhutan well and remains appropriate. The strong link to the rupee has moderated Bhutan's inflation, averaging just over 4 percent annually since 1999. It has also anchored confidence in the ngultrum, helping to keep interest rates relatively low, and has facilitated Bhutan's trade relations with India.

- While quantitative assessment is precluded by data constraints, more traditional measures indicate that the exchange rate level is broadly in equilibrium.

Notwithstanding periodic rupee reserves crunches, overall international reserves remain at a comfortable level and there is no sign of either a rapid buildup or depletion of reserves. Inflation continues to closely track that of India, suggesting there is no significant pressure on the bilateral real exchange rate through price adjustments on both directions. Sizable current account deficits in the medium term are mainly due to the construction of hydropower projects that are fully financed by grants and loans from the Government of India. The external debt service payments are expected to be met with earnings from electricity exports when these projects come on stream.



- Potential real appreciation associated with wage increases in a fast-growing economy is of a lesser concern in the case of Bhutan. The upward pressure on real wage could be muted by the fact that 23 percent of the population is still under the poverty line and 74 percent of the population remains in rural areas. Efforts to enhance private sector efficiency and to achieve productivity gains will also serve to contain inflation in the non-tradable sector.

quickly deplete their foreign exchange reserves as imports shift from India to third countries.<sup>18</sup> Staff noted that as the level of foreign exchange reserves increases, the authorities could undertake gradual easing and eventually eliminate the restrictions, in line with past recommendations of IMF technical assistance in this area.

#### **D. Employment and Private Sector Development**

**23. Given the expected large increase in the labor force over the next 4–5 years, the authorities recognize that private sector development is key for further job creation.**<sup>19,20</sup>

- There is a major shortage of skilled labor in Bhutan, and several measures are already underway to improve the skills and employability of the labor force. Additional measures, such as improving vocational training quality, expanding training programs, and enhancing labor market information sharing to match job seekers and employers will help promote the employment of local labor and encourage seeking employment in the private sector.
- The financing mix available to the private sector could also be strengthened. The two commercial banks are currently the main sources of funding for the private sector. This is a constraint for some smaller businesses whose access to credit is curtailed by rigid collateral requirements and complex procedures. Financing for larger corporates, on the other hand, is limited by the single borrower prudential limits. While the small size of the banking system could be a constraining factor, the impending entry of new banks and greater competition should help improve credit access. The recent creation of the Credit Information Bureau should also help reduce information asymmetries between lenders and borrowers. Staff also encouraged greater public education on the existing credit schemes for entrepreneurial development, and further developing donor-supported SME-lending schemes. Also, taking steps to develop inter-corporate borrowing via a commercial paper market, with an adequate supporting legal framework, would help improve transparent access to funds, particularly for larger businesses, by increasing the pool of lenders. Easing restrictions on foreign direct

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<sup>18</sup> Bhutan maintains exchange restrictions in connection with (i) the availability of foreign exchange for travel, invisibles, and private transfers; (ii) foreign exchange balancing requirements on remittances of income from FDI; and (iii) the availability of foreign exchange for importers who are not able to provide the identity of the seller. Changes to Bhutan's import licensing rules in 2005, which introduced new foreign exchange balancing requirements for certain imports gave rise to exchange restrictions subject to Fund approval under Article VIII, Section 2(a).

<sup>19</sup> Estimates of the labor force increase range between 70,000 and 90,000 over the next 3-5 years (the total labor force, based on the 2006 Labor Force Survey, is about 230,000).

<sup>20</sup> The government's draft *Economic Development Policy* (under discussion by Parliament) aims to create a framework for strong private sector development, including promoting entrepreneurship, generating employment, diversifying exports, and enhancing economic self-reliance.

investment, in particular relaxing the foreign exchange balancing requirement, would also help attract stable investment.<sup>21</sup>

### E. Staff Appraisal

24. **Anchored by hydropower sector development, Bhutan's strong growth performance has been supported by prudent economic management, firm donor support, and political stability.** The 9<sup>th</sup> Plan succeeded in lowering poverty, raising per capita income, and improving social indicators. The 10<sup>th</sup> Plan builds on these successes with a wide-ranging development agenda, including further poverty reduction through industrial, private sector, and infrastructure development. The challenge is to achieve these goals while maintaining economic and financial stability.

25. **The challenges for fiscal policy are to avoid overheating pressures and ensure debt sustainability.** The sharp deterioration in the budgeted 2009/10 fiscal position, combined with rapid private sector credit growth, risks fueling excess demand and pressuring rupee reserves. Thus, spending prioritization with a tightening bias is needed, especially as the reconstruction plan stemming from the recent earthquake, and its financing, solidify. Also, despite a history of low domestic financing, spending pressures on the new government are high and require an expansion in the revenue base and careful planning of expenditures. Despite breaching most LIC-DSA thresholds over the medium term, external debt is projected to return to a steady downward path after peaking in 2014/15. Given the concentration of debt in commercially viable hydropower projects, Bhutan's strong track record of project implementation, committed donor support and its high level of foreign reserves, staffs' assessment is that the external debt dynamics continue to be subject to a moderate risk of distress.

26. **Aligning monetary policy with the peg with the Indian rupee and strengthening financial sector supervision are both necessary for economic stability.** Developments in India's interest rates and consumer prices need to be carefully monitored and Bhutan's interest rates appropriately adjusted to avoid policy mismatches and unwarranted pressures on rupee reserves. Active liquidity management, facilitated by periodic T-bill issuance at market-driven interest rates, would aid monetary transmission. The impending entry of new financial institutions—a much needed development—should also help improve liquidity distribution. But the new banks could also trigger further credit growth which, in combination with the high NPLs and credit risks in the banking sector, requires strengthened financial sector supervision to avoid deepening financial sector vulnerabilities.

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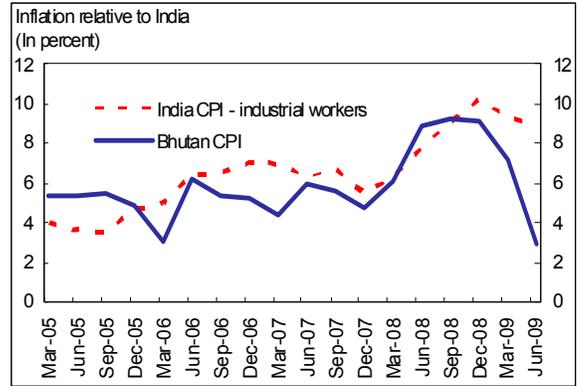
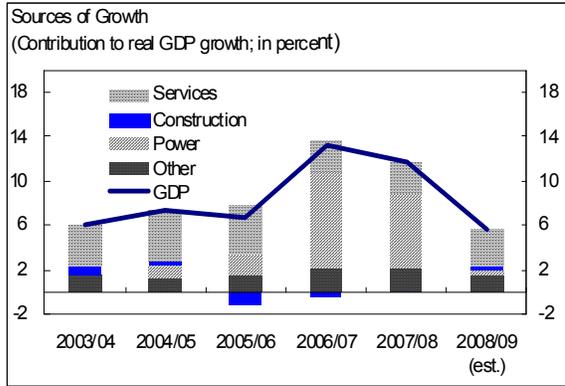
<sup>21</sup> The foreign exchange balancing requirement restricts the ability of foreign investors to remit profits unless the foreign exchange earnings of their investments in Bhutan more than cover their remittance amount.

27. **Adopting clear guidelines for reserve management would help improve the currency composition of reserves.** While the rupee credit lines with India are helpful to overcome the periodic pressures on rupee reserves, it is also important to adopt clear reserve management guidelines that harmonize currency composition of reserves with external liabilities and import demand. Expanding non-hydropower exports to India would also help increase rupee receipts.
28. **A vibrant private sector is essential for job creation.** Providing employment opportunities for the projected large increase in the labor force requires developing skill sets that match the job opportunities. To reduce the dependence on the civil service as the preferred employer, an enabling environment for private sector development is essential. Improving private sector's access to finance where needed, including through a commercial paper market for inter-corporate borrowing, would facilitate such development.
29. **Staff recommends eliminating the restrictions subject to approval under Article VIII, and removing restrictions maintained under Article XIV as soon as the balance of payments position permits.** Staff does not recommend approval of the restrictions subject to Fund approval under Article VIII as the authorities have not provided a timeframe for the removal of these restrictions. With the expected improvement in the convertible currency position, eliminating these restrictions should be feasible. However, given the volatile and unpredictable nature of these flows, a more gradual approach would be needed.
30. It is recommended that Bhutan remain on a 24-month Article IV consultation cycle.

Figure 1. Real and External Sector Developments

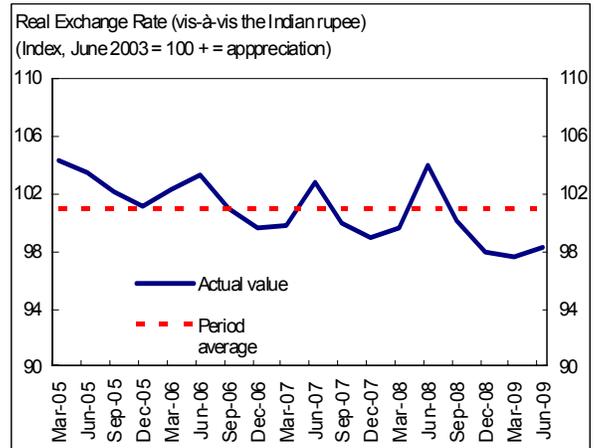
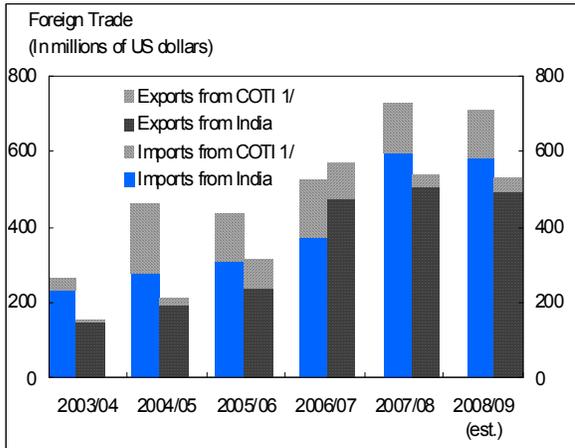
After Tala's commissioning in 2007, growth has moderated though remains strong.

Inflation has followed price developments in India, ...



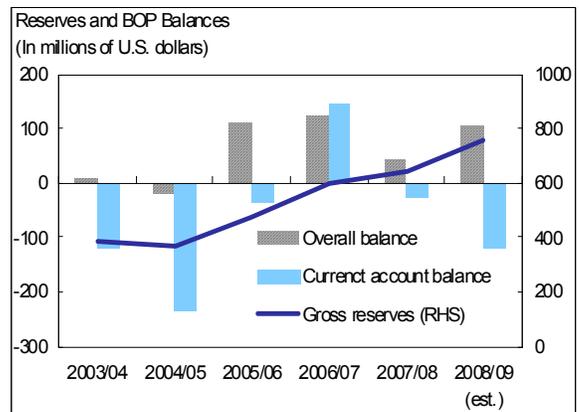
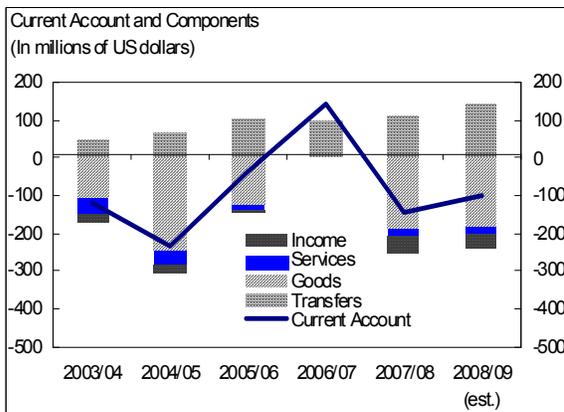
...which remains Bhutan's most important trading partner.

The real exchange rate is broadly in equilibrium.



The current account swung into deficit as Tala's debt service began and Puna I construction started.

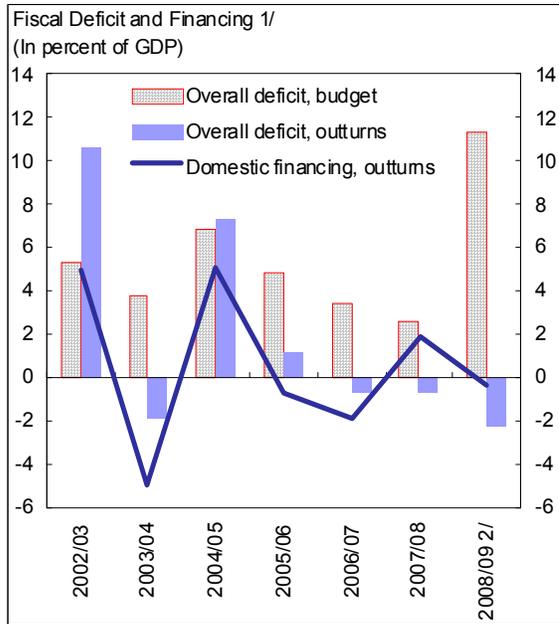
However, with adequate foreign inflows, overall reserves rose.



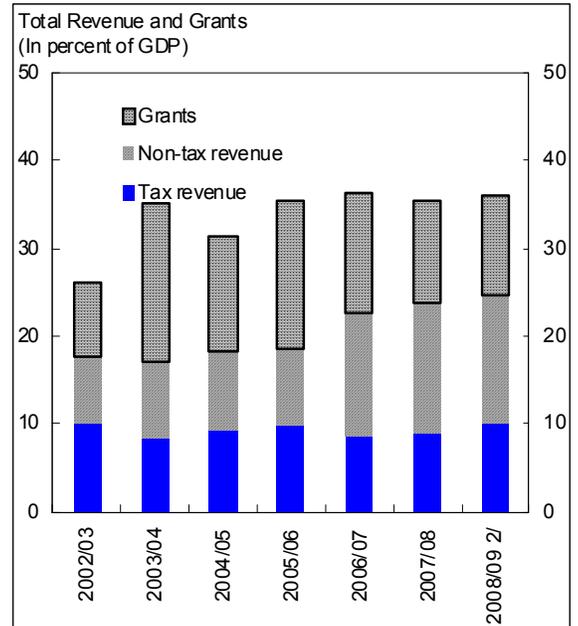
Sources: IMF, International Financial Statistics; Bloomberg Ltd.; and IMF staff calculations.  
1/ COTI refers to countries other than India.

Figure 2. Fiscal Sector Developments

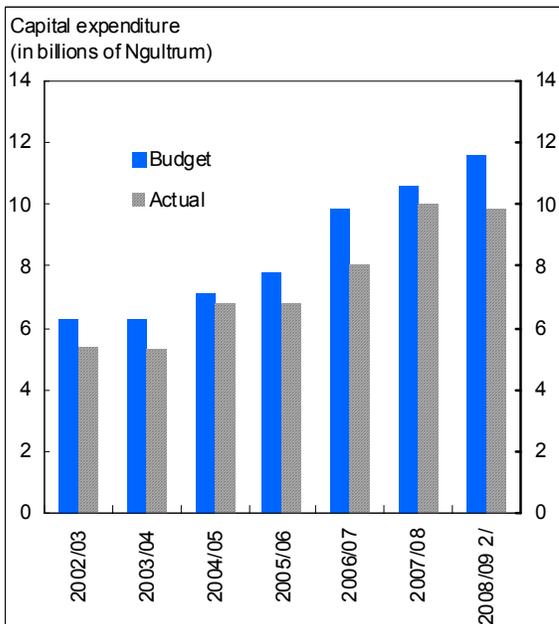
Fiscal performance is subject to significant volatility...



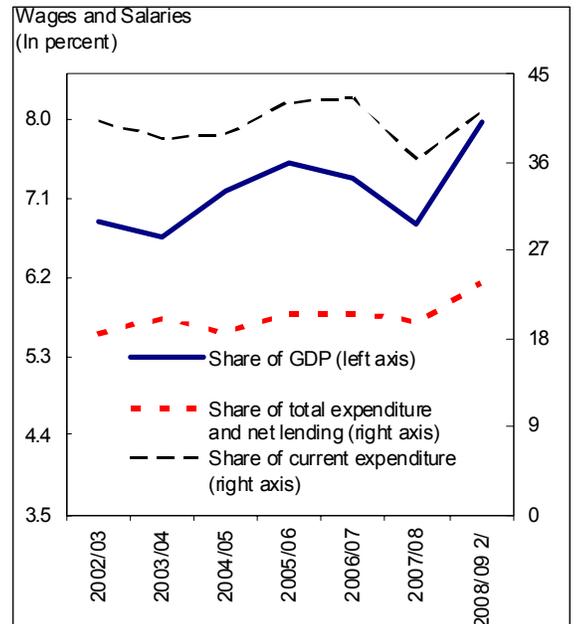
... reflecting unpredictable foreign aid.



Capital expenditure is on the rise despite a track record of underexecution of planned spending...



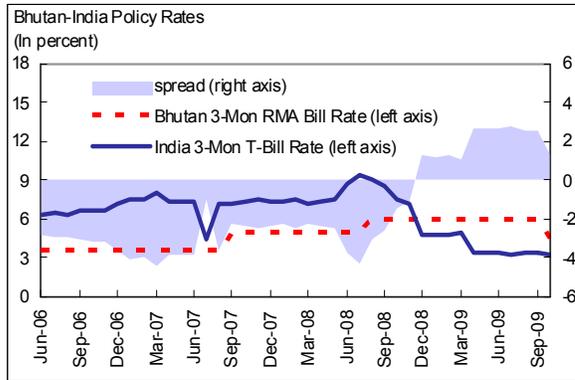
...while current spending is boosted by the 2008/09 civil service wage hike.



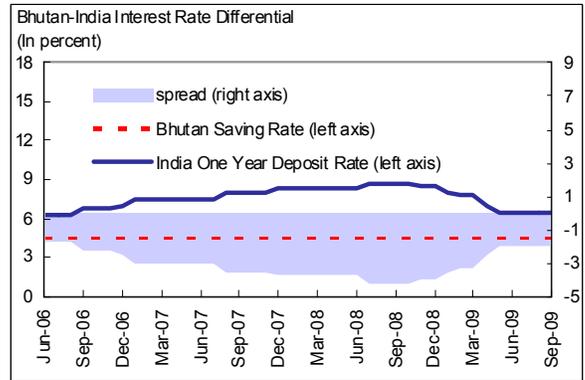
Sources: Royal Monetary Authority of Bhutan; and IMF staff calculations.  
 1/ Overall balance including grants.  
 2/ Provisional estimate.

Figure 3. Monetary and Financial Developments

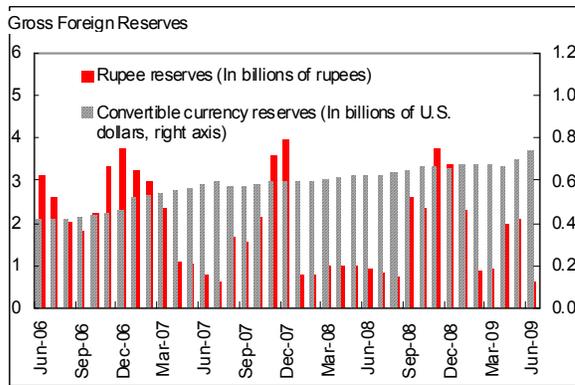
The policy rate spread with India has turned positive...



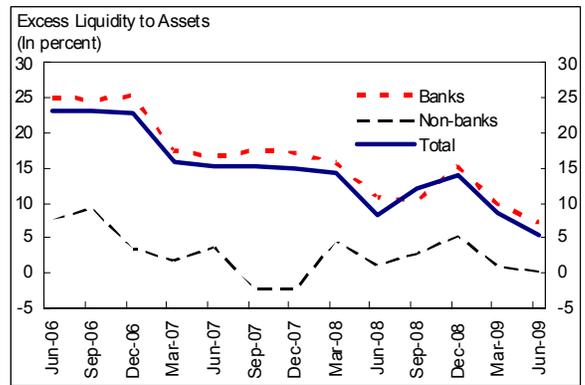
...and the spread with India's deposit rate is returning to a more customary level.



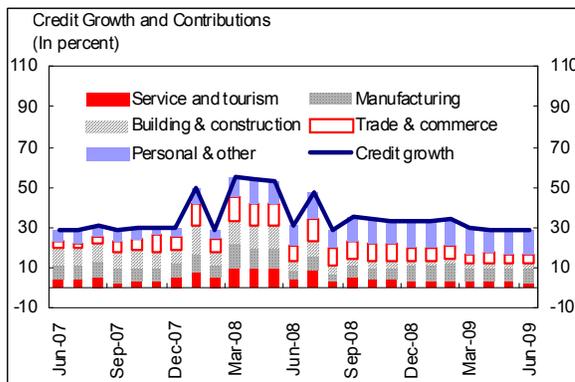
Convertible currency reserves remain strong but there are periodic pressures on rupee reserves.



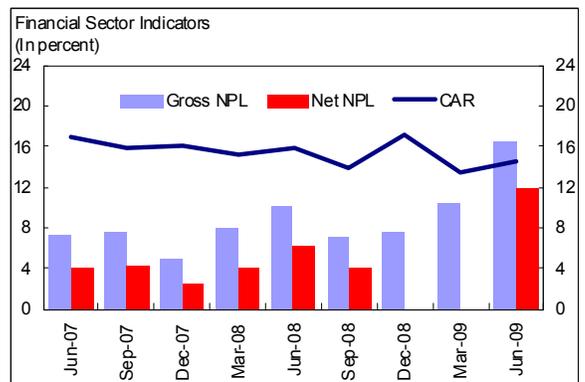
Excess liquidity has come down significantly.



Credit growth has been fast, with concentration in manufacturing, construction, trade and personal loans...



...and there are signs of worsening of credit quality, although capital adequacy remains healthy.



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

**Table 1. Bhutan: Selected Economic and Financial Indicators, 2005/06–2009/10 1/**

Nominal GDP (2007): US\$1,253 million

Population (2007): 0.66 million

GDP per capita (2007): US\$1,905

Quota: SDR 6.3 million

	2005/06	2006/07	2007/08	2008/09 Est.	2009/10 Proj.
<b>Real sector</b>					
Real GDP at market prices (percent change)	6.7	13.2	11.7	5.7	6.6
Consumer prices (percent change, period average)	4.9	5.2	6.3	7.2	8.4
Nominal GDP (at market prices; billions of ngultrum)	37.5	44.5	51.8	57.2	63.5
<b>General government</b>					
	(In percent of GDP)				
Total revenue and grants	35.5	36.2	35.3	35.9	36.5
Tax revenue	9.9	8.5	9.0	10.0	10.2
Non-tax revenue	8.5	14.2	14.8	14.6	12.2
Foreign grants	17.1	13.5	11.5	11.4	14.1
Total expenditure and net lending	36.7	35.5	34.6	33.7	39.8
Current expenditure	17.8	17.2	18.8	19.3	21.6
Capital expenditure	18.1	18.1	19.3	17.2	20.2
Current balance (excluding grants)	0.6	5.5	5.1	5.2	0.8
Overall balance	-1.2	0.6	0.7	2.2	-3.3
Public sector debt 2/	86.8	75.6	66.6	68.7	72.9
<b>Monetary sector 3/</b>					
	(Percent change, unless otherwise indicated)				
Broad money	41.4	8.6	2.3	24.6	...
Credit to private sector	33.3	34.6	39.7	29.3	...
<b>Interest rates (end of period, in percent)</b>					
Deposits (less than 1 year)	4.5	4.5	4.8	4.8	...
Lending	10-16	10-16	10-16	10-16	...
<b>External sector</b>					
	(In millions of U.S. dollars, unless otherwise indicated)				
Current account balance	-38	145	-27	-121	-100
(In percent of GDP)	-4.5	14.4	-2.1	-10.1	-7.4
Trade balance	-123	47	-72	-159	-187
Exports (goods)	312	573	599	457	538
(percent change)	47.2	83.7	4.4	-23.7	17.8
Imports (goods)	435	527	671	616	726
(percent change)	-5.6	21.1	27.4	-8.3	17.9
Grants (current transfer)	161	149	161	152	214
Capital account balance	131	115	102	108	187
Loans (net)	78	18	-13	41	118
Overall balance	112	122	45	106	86
(In percent of GDP)	13.4	12.1	3.5	8.8	6.4
Gross official reserves	479	600	646	758	842
(In months of goods and services imports)	9.8	9.4	11.3	11.3	10.8
External debt (in percent of GDP)	82.1	72.0	63.9	66.6	68.8
Of which: power sector debt	56.2	47.7	39.2	36.0	37.5
Debt service ratio (in percent of G&S exports)	5.3	3.8	14.2	15.0	14.3
Ngultrum per US\$ (period average)	44.7	44.2	40.4	47.8	...
<b>Memorandum items:</b>					
Electricity export (in percent of total goods exports)	28.3	29.6	41.9	45.2	38.1
Unemployment rate (in percent) 4/	3.1	3.2	3.7	...	...

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/ 12-month percent change in June.

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

Table 2. Bhutan: Government Budget Summary, 2005/06–2009/10 1/

	2005/06	2006/07	2007/08	2008/09		2009/10	
	Actual	Actual	Actual	Budget	Prov.	Budget	Proj.
(In millions of ngultrum)							
Revenue and grants	13,328	16,083	18,282	15,080	20,538	21,463	23,183
Domestic revenue	6,903	10,082	12,346	11,933	14,049	14,109	14,202
Tax revenue	3,717	3,768	4,666	4,842	5,725	6,479	6,473
Income taxes	1,833	2,109	2,547	2,713	3,282	3,836	3,724
Taxes on domestic goods	1,542	1,285	1,709	1,757	1,959	2,185	2,209
Taxes in international trade	158	145	130	100	178	146	199
Other	184	230	280	272	307	312	341
Nontax revenue	3,186	6,314	7,681	7,091	8,324	7,630	7,729
Profit transfers 2/	503	2,679	2,366	1,972	3,395	610	610
Royalties	407	499	573	644	757	589	589
Dividends	1,542	2,123	2,480	2,237	1,915	4,079	4,079
Other 3/	733	1,013	2,262	2,238	2,257	2,352	2,450
Foreign grants	6,425	6,001	5,935	3,148	6,489	7,354	8,981
From India	3,417	3,466	4,671	0	2,505	4,373	6,000
Other	3,008	2,535	1,264	3,148	3,984	2,981	2,981
Expenditure and net lending	13,771	15,795	17,914	21,585	19,292	26,304	25,296
Current expenditure	6,672	7,636	9,726	11,471	11,059	13,594	13,707
Wages and salaries	2,817	3,252	3,525	4,745	4,558	5,863	5,863
Goods and services	3,021	3,469	3,928	4,461	4,159	5,320	5,320
Subsidies and transfers	453	472	554	531	607	650	650
Interest 4/	382	443	1,719	1,735	1,734	1,762	1,875
Capital expenditure	6,809	8,072	9,993	11,571	9,827	13,827	12,859
Net lending 5/	289	87	-1,805	-1,458	-1,594	-1,117	-1,270
Current balance (excl. grants)	231	2,446	2,620	461	2,991	515	495
Overall balance	-443	288	368	-6,504	1,246	-4,842	-2,113
Foreign financing	715	530	-1,319	-125	-1,058	305	566
Disbursement	1,114	1,023	758	1,810	819	2,592	2,592
Amortization 6/	398	493	2,077	1,936	1,876	2,287	2,026
Domestic financing	-272	-818	951	6,630	-188	4,537	1,547
(In percent of GDP, unless otherwise indicated)							
Revenue and grants	35.5	36.2	35.3	26.4	35.9	33.8	36.5
Domestic revenue	18.4	22.7	23.8	20.9	24.6	22.2	22.4
Tax revenue	9.9	8.5	9.0	8.5	10.0	10.2	10.2
Income taxes	4.9	4.7	4.9	4.7	5.7	6.0	5.9
Taxes on domestic goods	4.1	2.9	3.3	3.1	3.4	3.4	3.5
Taxes in international trade	0.4	0.3	0.3	0.2	0.3	0.2	0.3
Other	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Nontax revenue	8.5	14.2	14.8	12.4	14.6	12.0	12.2
Foreign grants	17.1	13.5	11.5	5.5	11.4	11.6	14.1
From India	9.1	7.8	9.0	0.0	4.4	6.9	9.4
Other	8.0	5.7	2.4	5.5	7.0	4.7	4.7
Expenditure and net lending	36.7	35.5	34.6	37.8	33.7	41.4	39.8
Current expenditure	17.8	17.2	18.8	20.1	19.3	21.4	21.6
Capital expenditure	18.1	18.1	19.3	20.2	17.2	21.8	20.2
Net lending	0.8	0.2	-3.5	-2.6	-2.8	-1.8	-2.0
Current balance (excl. grants)	0.6	5.5	5.1	0.8	5.2	0.8	0.8
Overall balance	-1.2	0.6	0.7	-11.4	2.2	-7.6	-3.3
Foreign financing	1.9	1.2	-2.5	-0.2	-1.9	0.5	0.9
Disbursement	3.0	2.3	1.5	3.2	1.4	4.1	4.1
Amortization	1.1	1.1	4.0	3.4	3.3	3.6	3.2
Domestic financing	-0.7	-1.8	1.8	11.6	-0.3	7.1	2.4
Nominal GDP at market prices (In millions of ngultrum)	37,534	44,476	51,766	57,163	57,163	63,521	63,521

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

1/ Debt service related to Tala starts in 2007/08. Tala debt disbursement is off budget, but debt service is channeled through budget.

2/ Including revenue from Tala in 2006/07, 2007/08 and 2008/09 respectively. From 2009/10 on, when Tala becomes a corporation, its contribution appears in corporate income tax and dividends.

3/ Including Tala's interest payment, administrative fees and charges, sale of government property and revenue from government departments.

4/ Including receipts from Tala for its interest payments.

5/ Including Tala loan recovery for debt amortization of Nu. 1,395 million starting 2007/08.

6/ Including Tala loan amortization of Nu. 1,395 million starting 2007/08.

Table 3. Bhutan: Balance of Payments, 2006/07–2013/14

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
		Prov.			Staff projection			
	(In millions of U.S. dollars)							
Current account	145	-27	-121	-100	-206	-310	-366	-451
Trade balance	47	-72	-159	-187	-285	-386	-445	-531
Exports, f.o.b.	573	599	457	538	556	588	633	681
<i>Of which: electricity</i>	170	251	207	205	195	193	198	202
Imports, c.i.f.	-527	-671	-616	-726	-840	-974	-1,078	-1,213
Services	3	-39	-16	-19	-25	-31	-32	-35
Credit	60	55	53	63	70	79	89	101
Debit	-57	-93	-69	-82	-95	-109	-121	-136
Income	0	-32	-40	-40	-44	-42	-44	-47
Credit	26	35	17	30	34	46	51	55
Debit	-26	-68	-58	-70	-78	-88	-94	-102
<i>Of which: interest payments 1/</i>	-13	-43	-35	-43	-42	-43	-44	-43
Current transfers	96	117	94	146	147	149	155	162
Credit	148	168	156	218	225	232	244	260
<i>Of which: grants 2/</i>	149	161	152	214	220	228	239	255
Debit	-52	-51	-62	-72	-77	-83	-89	-98
Capital and financial account	115	102	108	187	290	399	456	532
Capital transfer 3/	25	16	36	62	100	131	152	181
Foreign direct investment	73	30	18	19	21	22	23	24
Portfolio investment	0	0	0	0	0	0	0	0
Loans (net)	18	-13	41	118	170	246	281	327
Disbursements	29	36	66	161	215	298	334	394
Amortization 1/	12	49	25	43	45	52	52	67
Other flows 4/	-1	69	13	-13	0	0	0	0
Errors and omissions	-139	-31	119	0	0	0	0	0
Overall balance	122	45	106	86	84	89	90	81
Memorandum items:	(In percent of GDP, unless otherwise indicated)							
Current account balance	14.4	-2.1	-10.1	-7.4	-14.3	-20.0	-21.9	-24.7
Trade balance	4.6	-5.6	-13.2	-13.8	-19.7	-24.9	-26.6	-29.1
Merchandise exports (percent change)	83.7	4.4	-23.7	17.8	3.2	5.7	7.7	7.7
Merchandise imports (percent change)	21.1	27.4	-8.3	17.9	15.8	15.9	10.7	12.5
External debt	72.0	63.9	66.6	68.8	74.9	84.6	94.1	103.1
(In millions of U.S. dollars)	725	819	796	931	1,081	1,310	1,575	1,882
(In percent of exports of goods and services)	114.5	125.4	156.1	155.0	172.9	196.7	218.2	240.4
Debt service (in percent of exports of goods and services)	3.8	14.2	15.0	14.3	13.9	14.2	13.3	14.1
(In millions of U.S. dollars)	24	93	77	86	87	95	96	110
Gross official reserves (in millions of U.S. dollars)	600	646	758	842	924	1,012	1,101	1,182
(In months of imports of goods)	10.7	12.6	12.5	12.0	11.4	11.3	10.9	11.1
(In months of imports of goods and services)	9.4	11.3	11.3	10.8	10.2	10.1	9.8	10.0
Ngultrum per U.S. dollars (fiscal year average)	44.2	40.4	47.8	...	...	...	...	...
Nominal GDP (in millions of U.S. dollars)	1,006	1,282	1,196	1,354	1,444	1,549	1,673	1,826

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.

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

Table 4. Bhutan: Monetary Survey, 2003/04–2008/09

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
Monetary survey	(In millions of ngultrum)					
Net foreign assets	16,457	16,397	22,109	24,459	25,923	32,595
Indian rupee	3,314	3,595	3,156	795	-835	-3,258
Other	13,142	12,802	18,954	23,664	26,757	35,853
Net domestic assets	-1,625	18	1,100	750	-142	-481
Net claims on government 1/	-1,818	-691	-648	-2,010	-2,265	-4,204
Claims on nongovernment	5,987	7,245	9,300	12,073	15,627	19,937
Public enterprises	1,203	1,276	1,278	1,243	1,168	1,111
Joint enterprises	211	140	120	228	78	355
Non bank financial institutions	314	323	559	718	568	610
Private sector	4,260	5,506	7,342	9,884	13,812	17,861
Other items (net) 2/	-5,794	-6,535	-7,552	-9,313	-13,504	-16,214
Broad money	14,832	16,416	23,209	25,209	25,781	32,113
Narrow money	7,737	8,445	10,678	13,542	14,392	18,374
Currency	2,015	2,303	2,615	3,166	3,641	4,540
Demand deposits	5,722	6,141	8,063	10,376	10,752	13,833
Quasi-money 3/	7,095	7,971	12,531	11,666	11,388	13,740
Royal Monetary Authority						
Net foreign assets	13,156	13,467	18,702	20,988	24,571	31,318
Indian rupee	1,822	2,070	1,507	136	-1,609	-3,799
Other	11,334	11,398	17,195	20,852	26,180	35,116
Net domestic assets	-3,786	-4,128	-5,228	-7,669	-11,700	-16,621
Net claims on government	-378	-679	-648	-2,010	-2,265	-4,204
Claims	37	100	0	0	0	0
Minus: deposits	415	779	648	2,010	2,265	4,204
Claims on deposit money banks	249	710	591	22	147	44
Claims on private sector	1	1	3	12	15	17
Minus: RMA bills	200	200	200	200	2,000	2,000
Other items (net)	-3,457	-3,959	-4,974	-5,492	-7,597	-10,478
Reserve money	9,370	9,340	13,475	13,319	12,871	14,697
Memorandum items:	(Changes in percent of initial stock of broad/reserve money)					
Broad money	4.0	10.7	41.4	8.6	2.3	24.6
Net foreign assets	-7.5	-0.4	34.8	10.1	5.8	25.9
Net domestic assets	11.5	11.1	6.6	-1.5	-3.5	-1.3
Net claims on government	-9.5	7.6	0.3	-5.9	-1.0	-7.5
Claims on private sector	7.9	8.4	11.2	11.0	15.6	15.7
Other items (net)	8.3	-5.0	-6.2	-7.6	-16.6	-10.5
Reserve money	17.0	-0.3	44.3	-1.2	-3.4	14.2
Net foreign assets	10.8	3.3	56.1	17.0	26.9	52.4
Net domestic assets	6.2	-3.6	-11.8	-18.1	-30.3	-38.2
Money multiplier 4/	1.6	1.8	1.7	1.9	2.0	2.2
Velocity of money	2.0	2.0	1.6	1.8	2.0	1.8
Broad money/GDP	0.50	0.49	0.62	0.57	0.50	0.56
Broad money growth (12-month percent change)	4.0	10.7	41.4	8.6	2.3	24.6
Reserve money growth (12-month percent change)	17.0	-0.3	44.3	-1.2	-3.4	14.2
Credit to private sector (12-month percent change)	35.9	29.3	33.3	34.6	39.7	29.3
Nominal GDP (In millions of ngultrum)	29,706	33,391	37,534	44,476	51,766	57,163

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

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

2/ Includes foreign exchange valuation adjustments and capital accounts.

3/ Includes time and foreign currency deposits.

4/ Ratio of broad money to reserve money.

Table 5. Bhutan: Medium-Term Macroeconomic Framework, 2005/06–2013/14

	2005/06	2006/07	2007/08	Tenth Plan Period					2013/14
				2008/09	2009/10	2010/11	2011/12	2012/13	
				Staff projection					
<b>Real sector (percent change)</b>									
Real GDP at market prices	6.7	13.2	11.7	5.7	6.6	6.7	6.4	6.2	7.1
Consumer prices (period average)	4.9	5.2	6.3	7.2	8.4	6.3	4.5	4.2	3.9
<b>Fiscal sector (in percent of GDP)</b>									
Revenue and grants	35.5	36.2	35.3	35.9	36.5	36.4	35.4	34.7	33.5
Domestic revenue 1/	18.4	22.7	23.8	24.6	22.4	22.7	22.3	21.9	21.0
<i>Of which</i> : tax revenue	9.9	8.5	9.0	10.0	10.2	10.9	10.9	10.9	10.8
Grants	17.1	13.5	11.5	11.4	14.1	13.6	13.1	12.8	12.5
Expenditure and net lending	36.7	35.5	34.6	33.7	39.8	38.3	37.0	36.5	34.8
Current expenditure	17.8	17.2	18.8	19.3	21.6	20.5	19.5	19.4	18.2
<i>Of which</i> : interest 2/	1.0	1.0	3.3	3.0	3.0	2.8	2.7	2.6	2.3
Capital expenditure	18.1	18.1	19.3	17.2	20.2	19.6	19.1	18.5	17.9
Net lending 3/	0.8	0.2	-3.5	-2.8	-2.0	-1.8	-1.6	-1.4	-1.3
Current balance (excl. grants)	0.6	5.5	5.1	5.2	0.8	2.3	2.8	2.5	2.8
Overall balance	-1.2	0.6	0.7	2.2	-3.3	-1.9	-1.5	-1.8	-1.3
External financing 3/	1.9	1.2	-2.5	-1.9	0.9	0.2	0.4	0.1	-0.5
Domestic financing	-0.7	-1.8	1.8	-0.3	2.4	1.7	1.2	1.7	1.9
<b>External sector (in millions of U.S. dollars)</b>									
Current account balance (including grants)	-38	145	-27	-121	-100	-206	-310	-366	-451
(In percent of GDP)	-4.5	14.4	-2.1	-10.1	-7.4	-14.3	-20.0	-21.9	-24.7
Trade balance	-123	47	-72	-159	-187	-285	-386	-445	-531
Exports	312	573	599	457	538	556	588	633	681
Imports	435	527	671	616	726	840	974	1078	1213
Services, income, and transfers (net)	85	99	46	37	87	79	76	79	80
<i>Of which</i> : grants	161	149	161	152	214	220	228	239	255
Capital and financial account balance 4/	131	115	102	108	187	290	399	456	532
<i>Of which</i> : foreign direct investment	6	73	30	18	19	21	22	23	24
<i>Of which</i> : loans (net)	78	18	-13	41	118	170	246	281	327
Overall balance	112	122	45	106	86	84	89	90	81
(In percent of GDP)	13.4	12.1	3.5	8.8	6.4	5.8	5.7	5.4	4.5
Gross foreign reserves (in millions of U.S. dollars)	479	600	646	758	842	924	1012	1101	1182
(In months of goods and services imports)	9.8	9.4	11.3	11.3	10.8	10.2	10.1	9.8	10.0
External debt (public and private, in percent of GDP)	82.1	72.0	63.9	66.6	68.8	74.9	84.6	94.1	103.1
<i>Of which</i> : Power sector debt	56.2	47.7	39.2	36.0	37.5	43.1	52.4	61.9	71.9
External debt service									
(In percent of exports of goods and services)	5.3	3.8	14.2	15.0	14.3	13.9	14.2	13.3	14.1
Nominal GDP (in millions of ngultrum)	37,534	44,476	51,766	57,163	63,521	70,507	78,003	86,171	96,158

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/	(2015 target = halve 1990 \$1 a day poverty and malnutrition rates)				
Population below \$2 per day (in percent)	...	...	...	...	...
Poverty gap at \$2 per day (in percent)	...	...	...	...	...
Percentage share of income or consumption held by poorest 20 percent	...	...	...	...	...
Prevalence of child malnutrition (in percent of children under 5)	...	...	...	...	...
Population below minimum level of dietary energy consumption (in percent)	...	...	3.8 (2003)	...	5.9 (2007)
Achieve universal primary education 3/	(2015 target = net enrollment to 100)				
Net primary enrollment ratio (in percent of relevant age group)	...	...	59.2	74.6	88.4
Percentage of cohort reaching grade 5 (in percent)	...	...	91.0	93.2	...
Youth literacy rate (in percent of ages 15–24)	...	...	...	74.4	...
Promote gender equality 4/	(2005 target = education rate to 100)				
Ratio of girls to boys in primary and secondary education (in percent)	...	...	86.0	93.9	97.8
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)	...	...	...	...	...
Proportion of seats held by women in national parliament (in percent)	2.0	...	2.0	8.7	8.5
Reduce child mortality 5/	(2015 target = reduce 1990 under 5 mortality by two thirds)				
Under 5 mortality rate (per 1,000)	147.9	125.2	106.0	89.8	...
Infant mortality rate (per 1,000 live births)	90.9	78.8	68.4	59.5	...
Immunization, measles (in percent of children under 12 months)	93.0	85.0	76.0	93.0	...
Improved maternal health 6/	(2015 target = reduce 1990 maternal mortality by three fourths)				
Maternal mortality ratio (modeled estimate, per 100,000 live births)	...	...	...	440.0	...
Births attended by skilled health staff (in percent of total)	...	...	23.7	...	...
Combat HIV/AIDS, malaria, and other diseases 7/	(2015 target = halt, and begin to reverse, AIDS, etc.)				
Prevalence of HIV, female (in percent of ages 15–24)	...	...	...	...	...
Contraceptive prevalence rate (in percent of women ages 15–49)	...	...	30.7	...	...
Number of children orphaned by HIV/AIDS	...	...	...	...	...
Incidence of tuberculosis (per 100,000 people)	539.9	428.5	340.0	269.8	...
Tuberculosis cases detected under DOTS (in percent)	...	37.5	40.6	39.9	...
Ensure environmental sustainability 8/	(2015 target = various, see notes)				
Forest area (in percent of total land area)	64.6	65.7	66.8	68.0	...
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/	(2015 target = various, see notes)				
Youth unemployment rate (in percent of total labor force ages 15–24)	...	...	...	6.3	...
Fixed line and mobile telephones (per 100 people)	0.3	1.0	2.5	10.6	17.1
Personal computers (per 100 people)	...	...	0.9	2.0	...
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	756.7	1,393.5
GNI per capita (in U.S. dollars)	560.0	560.0	730.0	1,160.0	1,900.0
Adult literacy rate (in percent of people ages 15 and over)	...	...	...	52.8	...
Total fertility rate (births per woman)	5.7	4.7	3.7	3.0	...
Life expectancy at birth (in years)	53.1	57.2	61.7	64.9	66.2
Aid (in percent of GNI)	15.5	24.4	12.7	11.8	...
External debt (in percent of GNI)	29.3	39.2	45.6	79.5	...
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	145.8

Source: *World Development Indicators database, April 2007.*

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 from hunger.

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

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 2009 Article IV Consultation**

**Informational Annex**

Prepared by the Staff Representatives for the 2009 Article IV Consultation with Bhutan

December 7, 2009

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## I. BHUTAN—FUND RELATIONS

(As of October 31, 2009)

<b>I.</b>	<b>Membership Status:</b> Joined 9/28/1981; Article XIV		
<b>II.</b>	<b>General Resources Account:</b>	<b>SDR Million</b>	<b>% Quota</b>
	Quota	6.30	100.00
	Fund holdings of currency	5.28	83.81
	Reserve position in Fund	1.02	16.20
<b>III.</b>	<b>SDR Department:</b>	<b>SDR Million</b>	<b>% Allocation</b>
	Holdings	6.42	107.15
<b>IV.</b>	<b>Outstanding Purchases and Loans:</b>	None	
<b>V.</b>	<b>Financial Arrangements:</b>	None	
<b>VI.</b>	<b>Projected Obligations to Fund:</b>	None	
<b>VII.</b>	<b>Implementation of HIPC Initiative:</b> Not applicable.		
<b>VIII.</b>	<b>Implementation of Multilateral Debt Relief Initiative (MDRI):</b> Not applicable.		
<b>IX.</b>	<b>Exchange System</b>		

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 an exchange restriction subject to Fund approval under Article VIII, Section 2(a).

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

Bhutan is on a 24-month consultation cycle. The 2007 Article IV consultation was concluded by the Executive Board on October 5, 2007.

### **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

**Legal (LEG):**

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

**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

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

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

(As of October 9, 2009)

### International Development Association (IDA)

Project	Commitments (Original) (In US\$m)	Disbursed (In percent)	Board Approval/Effectiveness
<i>Active projects:</i>			
Education Development Project	31.0	92.7	8/21/03
HIV/AIDS and STI Prevention and Control Project	5.8	79.1	6/17/04
Decentralized Rural Development Project	7.0	77.8	3/1/05
Second Rural Access Project	10.0	49.5	4/10/07
Private Sector Development	8.0	19.1	6/20/07
Institutional Capacity Building Project for Procurement	1.5	3.2	6/10/08
Development Policy Financing for Institutional Strengthening	20.2	100.0	5/26/09
Sub-total	83.5		
<i>Pipeline:</i>			
Urban Development-II	10.0 (TBC)		4/29/10 (TBC)
Development Policy Credit 1	10.0 (TBC)		9/28/10 (TBC)
<i>Nonlending (non-IDA):</i>			
Sustainable Land Management (GEF)	7.7	32.8	2/17/06
Avian Influenza Control Project (AHIF)	2.5	52.0	10/2/07
Introduction of Multi-Year Rolling Budgets (IDF Grant)	0.33	56.8	5/18/07
Improving Public Financial Management (IDF Grant)	0.29	30.3	6/1/07
Strengthening Institution Capacity for Implementation of Environmental Safeguards (IDF Grant)	0.4	13.1	6/5/08
Strengthening of Public Procurement Policy Division (IDF Grant)	0.48	9.6	5/28/09

Bhutan is an IDA-only country, and qualifies for 100 percent credits for FY10 and FY11. In FY09, Bhutan borrowed from IDA in a mix of 55 percent credits and 45 percent grants. In FY10, Bhutan exceeded the IDA Gross National Income per capita operational cutoff for the third year in a row, and has become a “gap” country. “Gap” countries receive IDA on hardened terms and are not eligible for grants, regardless of results of Debt Sustainability Analyses. Bhutan’s original IDA 15 allocation for FY10 and FY11 was about SDR8.3 million in each year. However, in FY09, Bhutan had the option of cumulatively frontloading up to 80 percent of its overall IDA15 indicative allocation for FY09-11, and chose to frontload about SDR 5.7 million, to add to its FY09 allocation of SDR8.0 million. Because of frontloading in FY09, Bhutan is left with a final IDA15 allocation of SDR8.3 million for FY10 and an indicative IDA 15 allocation of SDR2.1 million for FY11.

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

## World Bank's Country Assistance Strategy

The 2005 Country Assistance Strategy (CAS) for the FY06-09 period aligned with Bhutan's distinctive vision of *Gross National Happiness* and the priorities and goals of the Ninth Five-Year Plan (9FYP) (2002/03–2007/08, extended by one year). 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. 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. A new Country Assistance Strategy for FY10-14, aligned with the 10FYP, is currently under preparation for presentation to the Bank's Board in the fourth quarter of FY10. The new CAS is likely to focus on fostering private sector development by improving the policy environment and facilitating employment opportunities, and social infrastructure development by expanding access to and improving the quality of infrastructure (roads, urban, and ICT) in an environmentally sustainable manner.

## Lending Program

During the IDA 14 cycle, covering F06-08, 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 **Education Development Project**.

The following operations have been approved or are under preparation 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: (a) promote good governance through sound fiscal and public financial management and procurement, and strong accountability institutions; (b) foster dynamic labor markets, ensure skills match, and generate employment; and (c) expand access to infrastructure in an environmentally sustainable manner.
- A proposed **Second Urban Development Project** is currently scheduled for delivery to the Bank's Board in the fourth quarter of FY10. The proposed project development objectives are to: (a) support Bhutan's municipal reform program to achieve a more decentralized and accountable urban local government system, starting in Thimphu and Phuentsholing; and (b) 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 Bhutan Municipal Act of 2007 through

technical assistance, policy support, training programs, and studies. The second objective addresses an urgent need for serviced urban land in rapidly growing Thimphu City, in view of the substantial migrant population settling there.

In addition, the **First Development Policy Credit** is under preparation, expected to be delivered to the Bank's Board in early-FY11. 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. In addition, the RGoB continues to implement projects with IDA financing to expand the rural access road network, and to improve education and health outcomes.

### **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 FY06-08, the Bank approved several grants supporting these efforts. A US\$7.66 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. Institutional Development Fund (IDF) Grants to support **Introduction of Multi-Year Rolling Budgets** (US\$330,000), **Improving Public Financial Management** (US\$290,000), and **Strengthening Institution Capacity for Implementation of Environmental Safeguards** (US\$400,000) became effective in this period.

The Bank approved a new grant for Bhutan in FY09.

- A US\$484,000 IDF Grant for **Strengthening of the Public Procurement Policy Division** was approved in April 2009. The development objective of this Grant is to put in place the foundations for the creation of a professional and efficient center of excellence within government that can manage the public procurement function in Bhutan on a sustainable basis. The RGoB approved the creation of the Public Procurement Policy Division (PPPD) under the Department of National Properties, Ministry of Finance, in August 2008. This newly created division needs to be strengthened so that it can start fulfilling its mandates, and the Grant will provide assistance in this respect.

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

Since the Kingdom of Bhutan joined IFC as a member country in 2003, IFC has made investments in high-end tourism infrastructure and global trade finance support to local banks. IFC continues to assess investment potential for IFC in the following areas: education, telecom, hydropower, and financial markets. In addition, IFC has provided advisory services in areas to improve the investment climate, strengthen the financial sector, and help promote the role of

SMEs in private sector development. Below are summaries of IFC Investment and Advisory activities in Bhutan.

### **IFC Investment Services**

As on August 31, 2009, IFC has US\$8.2 million of senior debt outstanding in one tourism project in Bhutan. IFC is committed to the development of the financial sector of Bhutan. To demonstrate the same, IFC has extended lines of trade guarantee under the Global Trade Finance Program (GTFP) to both the banks operating in the country presently, namely Bank of Bhutan (BoB) and Bhutan National Bank (BNB). IFC is keen to explore further opportunities including participation in equity. With respect to IFC's exposure limits for Bhutan, it has further room available allowing up to about US\$25 million of additional investment in Bhutan.

### **IFC Advisory Services**

Since 2003, South Asia Enterprise Development Facility (SEDF), which is managed by IFC Advisory Services in South Asia in partnership with DFID and NORAD, has been delivering advisory services focused on improving existing banks' operations and the banking infrastructure and improving the investment climate by creating transparent and efficient regimes for both domestic and foreign investors to encourage job creation. In addition, IFC Infrastructure Advisory has been and will continue to explore opportunities to advise the RGoB on bankable PPP options to involve private sector in infrastructure projects being considered.

#### ***Access to Finance (A2F) Program***

SEDF has provided training programs targeting senior officials of the Royal Monetary Authority (RMA) and other senior bankers from leading financial institutions such as Bank of Bhutan (BOB), Bhutan National Bank (BNB), Bhutan Development Finance Corporation Ltd. (BDFC), and Royal Insurance Corporation of Bhutan (RICB). In addition, SEDF has provided advisory services to BoB and BNB on their risk management, IT strategy, and long-term strategies; both of these banks are at various stages of implementing the recommendations from this advisory work. SEDF, in close coordination with WB, prepared the RMA's nationwide Electronic Funds Transfer Clearing System Strategy paper; it is envisaged that WB under its PSD program will use this strategy to implement the required financial infrastructure (e.g., hardware and software procurement, installation and setup). Furthermore, SEDF has explored with local financial institutions the possibility to introduce Sustainable Energy Finance (SEF) in Bhutan.

#### ***Investment Climate (IC) Program***

SEDF assisted the Royal Government of Bhutan (RGoB) in reviewing the FDI Policy and welcomed improved clarity and attractiveness of the proposed regime. In addition, SEDF assisted RGoB with optimization of the company registration process, and now is working to

improve efficiency of business entry including enterprise registration and obtaining permits to start operations. SEDF and the Ministry of Economic Affairs (MoEA) are drafting the Enterprise Act, as well as work with inter-ministerial working group to compile the inventory of sectoral clearances and assess possibilities for streamlining through one-stop-shop solutions. Furthermore, SEDF will work with WB PSD to undertake an Investment Climate Assessment (ICA) survey of enterprises in order to inform private sector strategy and future IC initiatives.

### ***Infrastructure Program***

IFC Advisory Services has conducted an operational and financial diagnostic review of Drukair, the national airline, and has presented an assessment of various strategic options that the Government shareholder should consider for the airline to achieve its overarching objectives of air connectivity and sustainable commercial operations. In addition, SEDF, at RGoB's request, undertook a Preliminary Assessment of two sites located in southern Bhutan proposed for development of industrial estates or potential Special Economic Zones (SEZ).

### 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 full access to ADF and 80 percent cost-sharing limit for project financing.

Consistent with the highest priorities identified in Bhutan’s National Poverty Reduction and ADB’s Country Strategy and Program (CSP) approved in September 2005, the CSP has two strategic thrusts: (i) lending assistance focused on transport, power (including rural electrification), urban development, and financial and private sector development; and (ii) nonlending assistance for capacity building for sustainable development.

The CSP is being implemented in coordination with other development partners to avoid duplication. Examples include ADB’s rural electrification loans following the Rural Electrification Master Plan developed with assistance from the Government of Japan. Similarly, development partners are using the Road Sector Master Plan 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 2010–2012 is \$45 million. One grant project on rural electrification using a multitranche financing facility has been programmed for 2010 with its second subproject programmed for 2011. A rural road infrastructure project is on the pipeline for 2012. A nonlending program with a cumulative value of \$5.1 million has been programmed for 2010–2012.

#### Bhutan: Ongoing Loans and Grants

(As of September 30, 2009)

Project	Year of Approval	Project Amount (\$ million)	Disbursements (\$ million)
<b>LOANS</b>			
Road Network Project	2005	27.3	11.524
Financial Sector Devt Program (Program Loan)	2006	11.0	4.143
Financial Sector Devt Program (Project Loan)	2006	2.0	0.463
Urban infrastructure development	2006	24.6	2.352
Green Power Development Project (OCR Loan)	2008	51.0	8.063
Green Power Development Project	2008	29.0	12.938
<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	1.302
SASEC Information Highway Project	2007	4.7	—
Green Power Development Project	2008	25.3	1.713

## IV. BHUTAN—STATISTICAL ISSUES APPENDIX

As of November 15, 2009

### I. Assessment of Data Adequacy for Surveillance

**General:** Data provision has some shortcomings, but broadly adequate for surveillance. Most affected areas are: national accounts, balance of payments, and fiscal data.

**National Accounts:** 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. The March 2004 Multisector Statistics Mission assisted the authorities in preparing metadata and plans for improving the macroeconomic statistics and sociodemographic indicators.

**Price statistics:** 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.

**Government finance statistics:** 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.

**Monetary statistics:** 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; (iii) the monetary accounts for the RMA and other deposits money banks should be published in the *Monthly Statistical Bulletin*. The authorities and STA are working to improve the timeliness of data reporting to STA to be in line with national publications.

**Balance of payments:** Despite recent improvements, external statistics continue to be affected by shortcomings. These include (i) limited coverage of transactions leading to estimation of key data, (ii) compilation of trade data on a calendar year 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 January-February 2005, a mission in June 2009, in conjunction with the RMA, developed 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 quarterly balance of payments data in the future. Bhutan began supplying balance of payments data for publication in *IFS* in June 2007.

### II. Data Standards and Quality

Planned participation in the General Data Dissemination System (GDDS) in 2010.	No data ROSC is available.
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## Bhutan—Table of Common Indicators Required for Surveillance

As of November 15, 2009

	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	11/2009	11/2009	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	06/2009	10/2009	M	M	M
Broad money	06/2009	10/2009	M	M	M
Central bank balance sheet	06/2009	10/2009	M	M	M
Consolidated balance sheet of the banking system	06/2009	10/2009	Q	Q	Q
Interest rates <sup>2</sup>	09/2009	10/2009	M	M	M
Consumer price index	06/2009	10/2009	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	2007/08	10/2009	A	A	A
Exports and imports of goods and services	2007/08	10/2009	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 2009<sup>1</sup>**

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

Approved by Laura Papi and Dhaneshwar Ghura (IMF)  
Carlos Primo Braga and Ernesto May (IDA)

December 7, 2009

*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> Bhutan's rapid hydropower development will lead to a substantial buildup of external debt, with debt ratios breaching some of the country-specific LIC-DSA indicative thresholds. However, given the commercial viability of the hydropower projects, Bhutan's strong track record of project implementation, committed donor support and its high level of international reserves, staff's assessment is that the external debt dynamics continue to be subject to a moderate risk of distress. Nevertheless, the results of the DSA underscore the importance of containing domestically financed fiscal deficits and sustaining economic growth going forward to ensure a declining debt profile.*

## I. BACKGROUND

1. **Bhutan's public and publicly guaranteed debt declined to 69 percent of GDP at end 2008/09, 19 percentage points of GDP below its 2003/04 peak.**<sup>3,4</sup> The sharp decline in public debt was driven by the completion of the Tala hydropower project that was financed

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<sup>1</sup> This DSA was prepared jointly by the IMF and the World Bank, in consultation with the Asian Development 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> Fiscal year starting July 1.

<sup>4</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.

by India, which boosted economic output by 20 percent in 2007, and by the onset of the repayment of the associated rupee debt. Reflecting the favorable fiscal outturns in recent years, domestic debt, all denominated in local currency and held by domestic financial institutions, has also declined.<sup>5</sup> External debt, which accounts for more than 97 percent of total public debt, continues to be dominated by the mostly Indian rupee-denominated hydropower sector debt (36 percent of GDP and 54 percent of external debt). Convertible currency debt, accounting for 44 percent of external debt, declined to 29 percent of GDP.<sup>6</sup> The actual outturn of public debt indicators for 2007/08 and 2008/09 was slightly more favorable than projected in the previous DSA, as better than expected fiscal balances compensated for the more rapid accumulation in rupee debt and the downward revision of historical nominal GDP figures.

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

	03/04	04/05	05/06	06/07	07/08	08/09
Total debt	87.6	87.4	86.8	75.6	66.6	68.7
Domestic debt	6.8	7.8	4.7	3.5	2.7	2.1
External debt	80.9	79.6	82.1	72.0	63.9	66.6
<i>Of which: hydropower projects</i>	55.6	55.9	56.2	47.7	39.2	36.0
<i>Of which: convertible currency debt</i>	33.0	31.5	33.1	30.7	27.3	29.1

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

## II. UNDERLYING DEBT SUSTAINABILITY ANALYSIS ASSUMPTIONS

2. **Under the baseline scenario, Bhutan pursues its planned expansion in its power generation capacity.**<sup>7</sup> In addition to the Punatsangchu I and Dagachu projects, included in the 2007 DSA, the baseline scenario incorporates two new hydropower projects, Punatsangchu II and Mangdechu.<sup>8</sup> Both projects will be financed by the Government of India

<sup>5</sup> Domestic debt data compiled by the Royal Government of Bhutan include fixed rate debt relating to the purchase of one airplane for state-owned Druk Air in 2004/05, amounting to about half of total domestic debt.

<sup>6</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>7</sup> The new hydropower development policy of Bhutan outlines 10 potential hydropower projects, which would quintuple Bhutan's power generation capacity by adding further 10,000 MW of installed capacity by 2020 out of the estimated potential capacity of 23,760 MW. However, since most of these projects are at early stages of conception, they are not included in the projections.

<sup>8</sup> Puna II's power generation capacity will be 992 MW, while Mangdechu's will be 672 MW. The financing terms for both projects are yet to be finalized, however they are expected to be similar to Puna I's with 30 percent grants, and 70 percent loan in Indian rupees at 11 percent interest rate from the GOI. Debt service will begin after the commissioning of the projects and will continue for 12 years. Similar to Tala and Puna I, the interest payments accumulated during construction are expected to be repaid after the project completion without being capitalized.

(GOI) through a combination of loans and grants.<sup>9</sup> The intergovernmental agreements are expected to be finalized and signed by end-2009 and project disbursements to begin in 2009/10. 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.

Bhutan: Major Hydropower Projects

	Date of Commissioning	Installed Capacity	Total Costs 1/	Financing 2/	Internal Rate of Return 3/
		(MW)	(Percent of GDP)		(In percent)
Chukha	1986, 1988	336	15	GOI: 60 percent grant; 40 percent loan (9 percent interest)	16.9%
Tala	2006	1020	81	GOI: 60 percent grant; 40 percent loan (9 percent interest)	11.9%
Punatsangchu I 4/	2016	1095	68	GOI: 40 percent grant; 60 percent loan (10 percent interest)	13.7%
Mangdechu 4/	2019	672	70	GOI: 30 percent grant; 70 percent loan (11 percent interest)	14.3%
Punatsangchu II	2019	992	97	GOI: 30 percent grant; 70 percent loan (11 percent interest)	11.0%

Sources: Department of Energy; and IMF staff calculations.

1/ In 2007 prices in percent of 2007 GDP.

2/ The financing for Puna II and Mangdechu is yet to be finalized. The table reflects the financing modalities assumed for the purpose of the DSA.

3/ Assuming 10 percent scrap value of total cost at the end of 35 years of commercial operation, annual operation and management cost at 1.5 percent of the total costs with 4 percent annual increase, and 15 percent spared for domestic sales.

4/ The projects' internal rates of return are provided by authorities.

### 3. The hydropower sector will also govern the rest of the economy as summarized by the following key baseline macroeconomic assumptions.

- Real sector:** Similar to the spike in real GDP when Tala was commissioned in 2006/07, Puna I, Mangdechu and Puna II will substantially boost economic growth as they come on stream in 2016/17, 2018/19 and 2019/20, respectively. In the interim, growth will be supported by the hydropower construction activities and the commissioning of Dagachu in 2013/14. Real growth excluding hydropower-related activity is projected to hover between 5-6 percent. Inflation is expected to remain in line with price developments in India, with the ngultrum pegged to the Indian rupee.
- Fiscal sector:** Upon completion, the hydropower projects will boost the domestic revenue-to-GDP ratio, which also benefits from a gradual broadening of the tax base and improvement in tax administration.<sup>10</sup> External budgetary aid, on the other hand, is

<sup>9</sup> Although strictly speaking the financing of hydropower projects is non-concessional (i.e., below the usual 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. In addition, as discussed in footnote 11, a higher discount rate to calculate the present value of the rupee loans may be appropriate in view of the higher inflation and risk-free long-term interest rates in India, which would further raise the grant element of these loans.

<sup>10</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 the VAT. Further domestic revenue improvements could be achieved by harmonizing the direct income tax rates and limiting tax holidays.

projected to decline sharply as a share of GDP as Bhutan's per capita income rises. On average, the overall fiscal deficit remains broadly balanced over the long term.

- **External sector:** The current account is projected to deteriorate over the medium term due to Tala's debt service and the higher import demand associated with the construction phase of the new hydropower projects. In the long run, as electricity exports more than quadruple, the power sector contributes to balance of payment surpluses.

Key Macroeconomic Assumptions

	Baseline		10 year Historical Average
	2009/10 - 2014/15	2015/16 - 2029/30	
Real GDP growth (percent)	6.6	5.9	8.1
Growth of exports of goods and services (US dollar terms)	3.7	7.0	2.0
Non-interest current account deficit (in percent of GDP)	16.0	-3.1	9.9
Primary deficit (in percent of GDP)	-0.8	-5.1	2.2

### III. EXTERNAL DEBT SUSTAINABILITY ANALYSIS

#### A. Baseline

4. **Bhutan's external debt will continue to trace the cycles of the hydropower sector.** The PV of external debt as a share of GDP is projected to rise by 47 percentage points between 2009/10 and 2014/15 as disbursements for new hydropower projects pick up.<sup>11</sup> The debt ratios remain above the LIC-DSA indicative threshold for strong policy performance countries until 2022/23 for the PV of external debt to GDP, and until 2017/18–2019/20 for the PV of external debt as a share of exports and revenue.<sup>12</sup> The commissioning of the new hydropower projects, which also marks the start of the debt repayment, puts the debt ratios on a steady downward trajectory.

5. **The debt service-to-export ratio is expected to remain below the indicative thresholds for the entire projection period.** The debt service-to-revenue ratio may

<sup>11</sup> The PV of external debt is calculated assuming the standard discount rate of 4 percent for both rupee and convertible currency debt. Using a discount rate for rupee denominated debt of 11.25 percent in view of the higher inflation and risk-free long-term interest rates in India, lowers the various PV of debt ratios substantially: the PV of debt-to-GDP ratio peaks at 89 percent, while the PV of debt-to-revenue ratio peaks at 430 percent in 2014/15. The PV of debt-to-exports ratio remains below the indicative threshold.

<sup>12</sup> Bhutan, with an average 2006-08 Country Policy and Institutional Assessment (CPIA) index of 3.86, is currently classified 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.

temporarily breach the indicative threshold as Puna II and Mangdechu's debt service begins; however, it is expected to remain below the threshold for the rest of the projection period. The high level of foreign reserves, projected to average 10 months of imports and 50 percent of GDP over the period when indicative thresholds are breached (i.e. 2009/10-2023/24), provides further cushion in the unlikely event of debt repayment difficulties.

### **B. Sensitivity Analysis**

#### **6. Bhutan's external debt profile is sustainable under most alternative scenarios.**

While the debt ratios are most vulnerable to exchange rate and export growth shocks, as well as unfavorable financing terms, under almost all alternative scenarios considered the debt ratios decline over time, and eventually fall below the thresholds. In case of a 30 percent nominal depreciation in 2009/10, the PV of debt rises to more than 170 percent of GDP and 835 percent of revenue. The debt service-to-revenue ratio is also negatively impacted. However, the exchange rate shock overestimates Bhutan's debt vulnerability since a large share of Bhutan's receipts are in Indian rupees which act as a natural hedge to the rupee-denominated debt.<sup>13</sup> The export growth shock and higher financing terms for new public sector borrowing also increase the various debt ratios.

## **IV. PUBLIC DEBT SUSTAINABILITY ANALYSIS**

### **A. Baseline**

**7. The baseline public debt dynamics follows closely that of the external debt.** The public debt-to-GDP ratio is expected to rise until the commissioning of the new hydropower projects and then rapidly decline until it reaches 32 percent of GDP by end 2029/30. In light of Bhutan's strong economic performance, external financing is projected to shrink as a share of GDP, making room for domestic financial markets to play a larger role in financing the development agenda. Domestic debt is projected to reach about 11 percent of GDP by 2015/16 and be contained below that level as share of GDP for the remainder of the projection period.

### **B. Sensitivity Analysis**

**8. The public debt ratios remain on a declining path over the long term under various stress tests.** Not surprisingly, given the large share of external debt in total public debt and the analysis above, overall public debt is most vulnerable to shocks to the exchange rate. A one time depreciation results in an upward shift in the various public debt indicators without affecting the shape of the debt indicators' path. However, the sensitivity analysis suggests that under a historical scenario, public sector debt will rise and remain at an elevated

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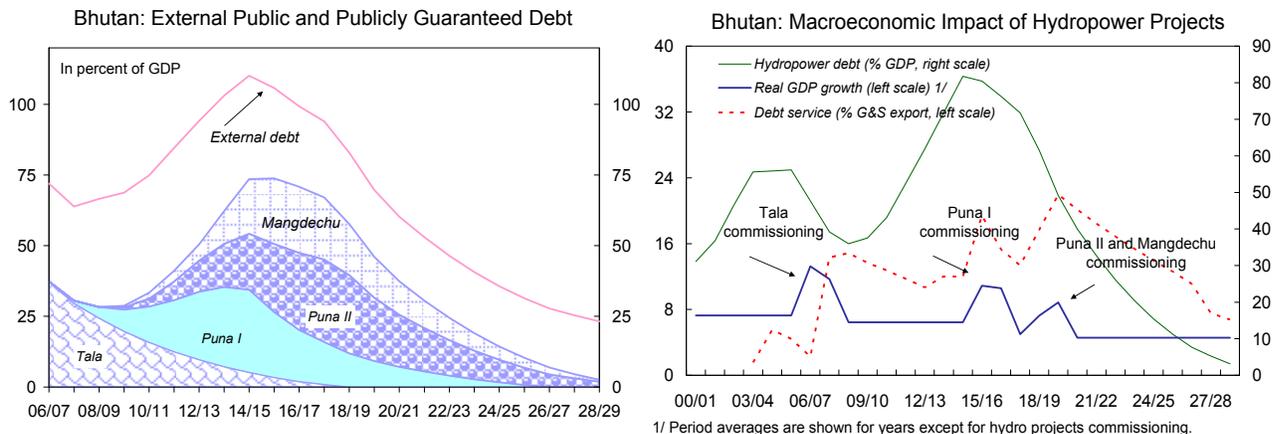
<sup>13</sup> Staff estimates that rupee denominated revenues will account for more than 40 percent of the non-grant fiscal revenue over the projection period.

level over the long-term. This scenario, which assumes a constant primary deficit of 2.2 percent of GDP (compared to the projected primary surplus of 3.8 percent of GDP over the 20 year period), underscores the importance of containing fiscal deficits to ensure the sustainability of public debt.

## V. STAFF ASSESSMENT

### 9. The assessment made in the 2007 IMF/World Bank Joint DSA—that Bhutan’s debt dynamics are sustainable but subject to a moderate risk of distress—still holds.

- The addition of the two new hydropower projects leads to a substantial build-up in external debt, relative to the analysis in the 2007 DSA. The policy-related LIC-DSA thresholds are breached for several of the indicators and remain breached for a longer period of time compared to the previous analysis. However, the additional projects bring strong economic dividends, boosting average real GDP growth and exports. Real GDP growth and growth of exports of goods and services are projected to average 6.2 percent and 11.2 percent respectively over 2013/14-2027/28, compared to 5.2 percent and 8.6 percent in the 2007 IMF/World Bank Joint DSA.<sup>14</sup> Moreover, despite the large increase in the stock of debt, the addition of the new hydropower projects does not bring in substantial vulnerabilities with regards to debt servicing.

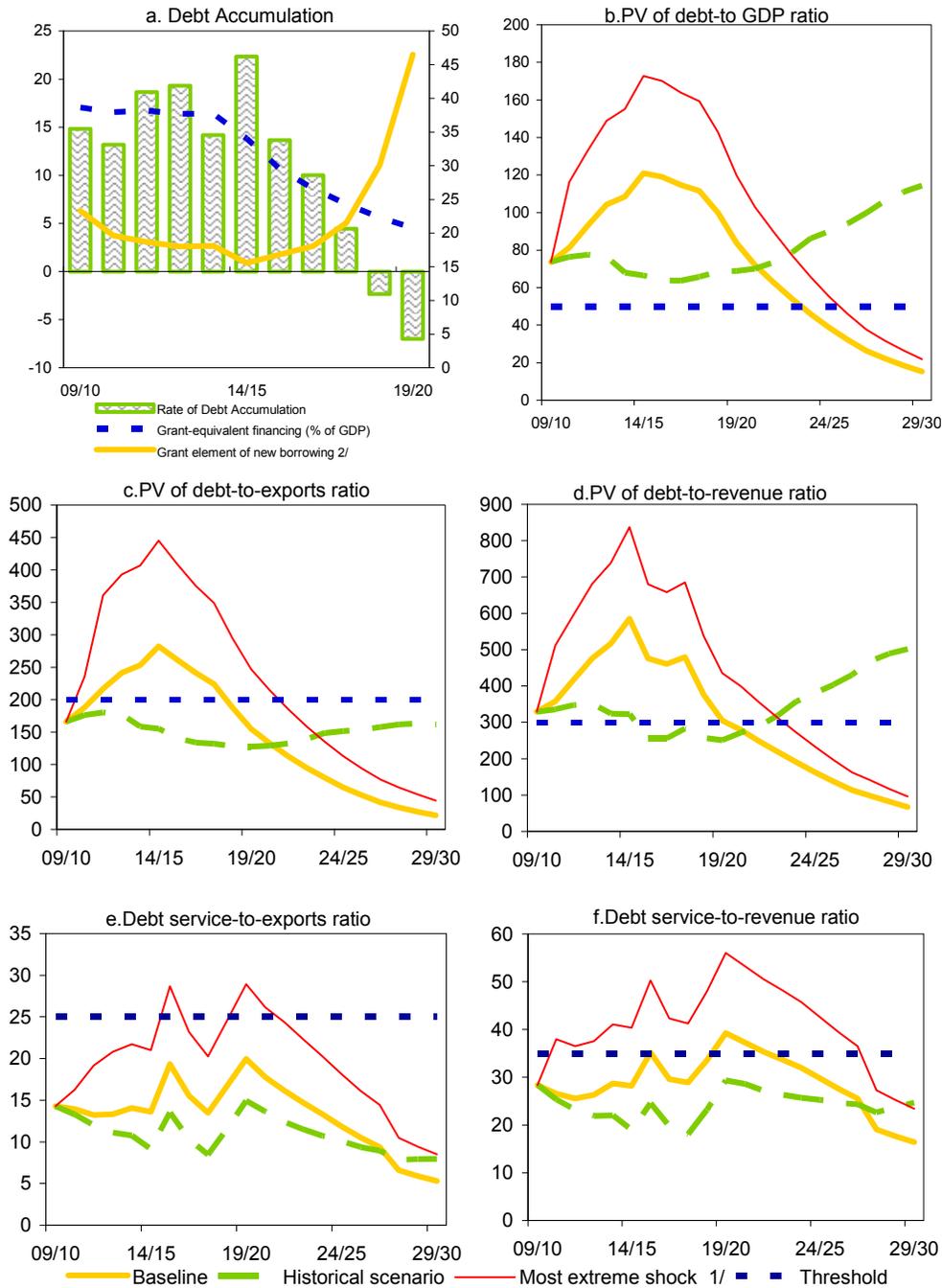


- Furthermore, the mitigating factors that were highlighted in the 2007 assessment remain valid, namely:

<sup>14</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.

- Bhutan has a strong track record of project implementation as detailed in the 2007 DSA suggesting that the new hydropower projects are subject to low implementation risk.
- The new hydropower projects are commercially viable. Puna I is expected to have smaller real costs of construction than Tala for a larger generation capacity, leading to a higher internal rate of return. Similarly Puna II and Mangdechu are expected to have a solid internal rate of return of about 11-14 percent.
- Bhutan maintains close economic and political ties with India which mitigate the commercial risks of these projects. India has been both the main provider of financing for hydropower projects and the main consumer of the projects' output. Going forward, India's favorable economic outlook and its sizeable power deficit will continue to support the demand for Bhutan's hydropower. This is reflected in India's commitment to developing 10,000 MW of hydropower in Bhutan by the year 2020 and its pledge of Rs 100 billion support over the 10<sup>th</sup> Plan Period.

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

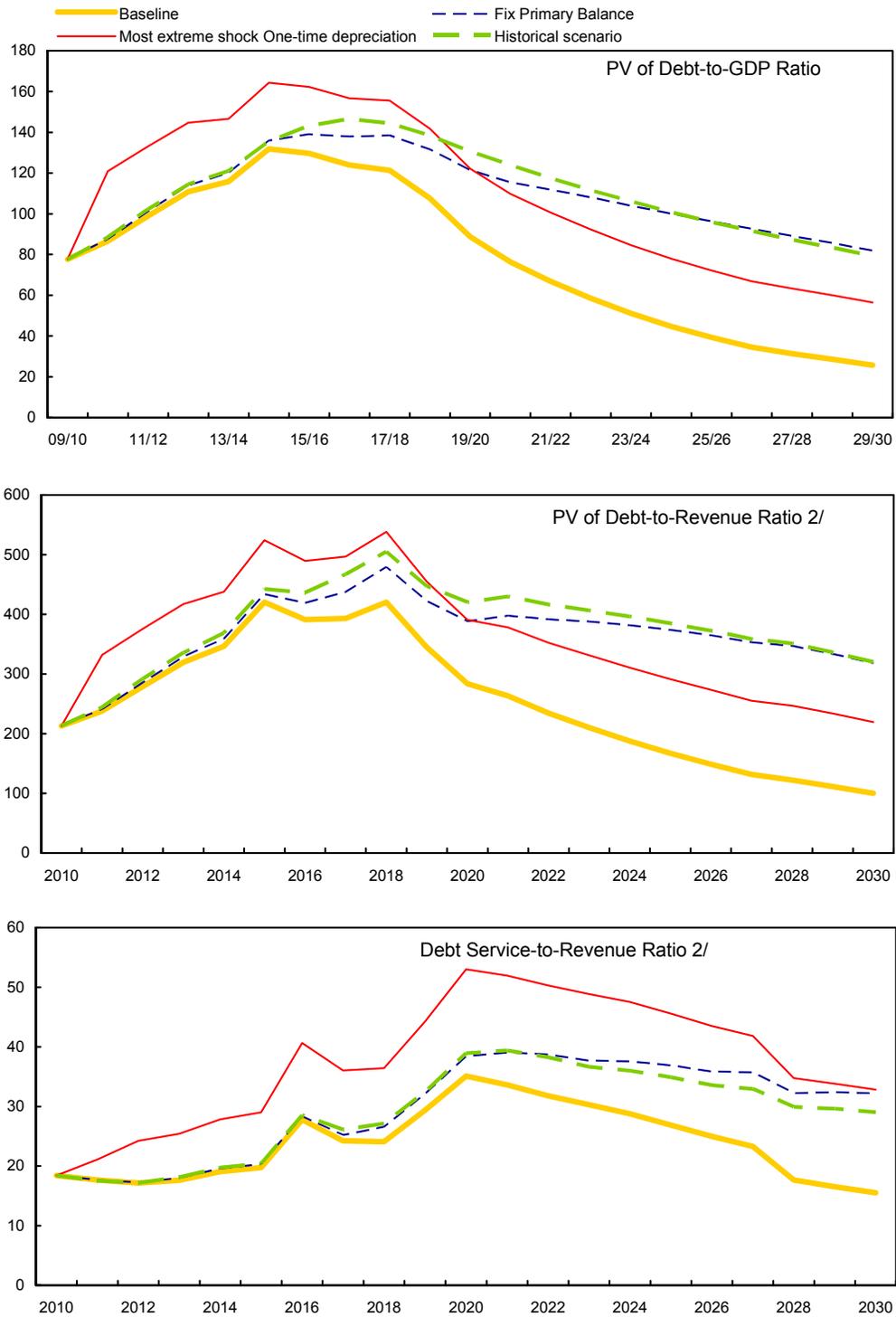


Sources: Country authorities; and staff estimates and projections.

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

2/ The shape of the grant element of new borrowing reflects the composition of new loans. Under the standard DSA assumptions, rupee debt appears nonconcessional since its interest rate of 11 percent exceeds the 4 percent discount rate. Thus, until 2018/19, when rupee disbursements dominate external financing, the grant element seems low. However, it starts rising once the rupee financed hydropower projects are completed, and concessional loans from multilateral and bilateral development partners take stage.

Figure I.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 I.1. Bhutan: External Debt Sustainability Framework, Baseline Scenario, 2006/07-2029/30 1/  
(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average	Standard Deviation	Projections										
	2006/07	2007/08	2008/09			2009/10-2014/15					2015/16-2029/30					
						2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	Average	2018/19	2029/30	Average	
External debt (nominal) 1/	72.0	63.9	66.6			68.8	74.9	84.6	94.1	103.1	110.1			69.7	21.8	
Convertible currency debt	23.0	22.6	29.9			31.3	38.2	44.3	47.0	47.4	44.2			12.1	19.2	
Rupee debt	49.0	41.3	36.6			37.4	36.7	40.2	47.1	55.7	65.9			57.7	2.6	
Power sector debt	56.2	47.7	42.3			42.9	43.7	48.7	57.5	66.4	75.2			61.5	3.2	
Change in external debt	-10.1	-8.2	2.7			2.2	6.1	9.7	9.6	8.9	7.1			-13.2	-1.5	
Identified net debt-creating flows	-35.4	-15.8	13.2			2.1	8.5	14.1	15.7	17.2	16.8			-7.8	-3.6	
Non-interest current account deficit	-15.7	-1.3	7.2	9.9	13.9	4.3	11.3	17.2	19.3	22.3	21.8	16.0		-5.6	-4.0	-3.1
Deficit in balance of goods and services	-4.9	8.7	14.6			15.2	21.4	26.9	28.5	31.0	28.9			-5.7	-4.4	
Exports	62.9	51.0	42.6			44.4	43.3	43.0	43.1	42.9	42.8			54.1	70.6	
Imports	58.0	59.6	57.2			59.6	64.8	69.9	71.7	73.9	71.7			48.4	66.1	
Net current transfers (negative = inflow)	-9.5	-9.1	-7.8	-8.9	1.8	-10.8	-10.2	-9.6	-9.3	-8.9	-6.9			1.0	2.0	0.8
o/w official	-14.8	-12.6	-12.7			-15.8	-15.2	-14.7	-14.3	-13.9	-12.0			-4.2	-3.3	
Other current account flows (negative = net inflow)	-1.3	-0.9	0.4			-0.2	0.1	-0.1	0.0	0.2	-0.2			-1.0	-1.5	
Net FDI (negative = inflow)	-7.3	-2.3	-1.5	-1.4	2.2	-1.4	-1.4	-1.4	-1.4	-1.3	-1.2			-0.8	-0.4	-0.7
Endogenous debt dynamics 2/	-12.4	-12.1	7.5			-0.7	-1.4	-1.7	-2.2	-3.8	-3.7			-1.4	0.8	
Contribution from nominal interest rate	1.3	3.4	3.0			3.2	2.9	2.8	2.6	2.4	2.3			5.2	1.8	
Contribution from real GDP growth	-9.1	-6.6	-3.9			-3.9	-4.3	-4.5	-4.8	-6.2	-6.0			-6.6	-1.0	
Contribution from price and exchange rate changes	-4.6	-8.9	8.5			...	...	...	...	...	...			...	...	
Residual (3-4) 3/	25.3	7.6	-10.6			0.1	-2.3	-4.5	-6.1	-8.3	-9.8			-5.4	2.1	
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/	...	...	68.4			73.6	81.4	93.3	104.2	108.5	120.9			83.8	15.3	
Convertible currency debt	...	...	21.0			21.3	30.7	36.7	38.1	32.5	39.1			1.7	10.3	
Rupee debt	...	...	47.5			52.3	50.6	56.6	66.1	76.0	81.8			82.1	5.0	
Power sector debt	...	...	51.8			56.9	56.8	64.1	75.4	86.3	90.6			85.9	5.6	
In percent of exports	...	...	160.5			165.8	187.9	216.8	241.5	253.1	282.2			155.0	21.7	
In percent of government revenues	...	...	278.5			329.1	357.9	418.4	476.4	517.0	585.5			304.8	67.1	
Debt service-to-exports ratio (in percent)	3.8	14.2	15.0			14.3	13.9	13.2	13.3	14.1	13.6			20.0	5.3	
PPG debt service-to-revenue ratio (in percent)	10.5	30.4	26.1			28.4	26.6	25.5	26.3	28.7	28.2			39.2	16.4	
Total gross financing need (Millions of U.S. dollars)	-207.6	46.2	144.8			124.2	230.2	332.9	395.1	493.9	521.4			141.9	-40.4	
Non-interest current account deficit that stabilizes debt ratio	-5.7	6.9	4.5			2.0	5.2	7.5	9.7	13.4	14.7			7.6	-2.5	
Key macroeconomic assumptions																
Real GDP growth (in percent)	13.2	11.7	5.7	8.1	2.6	6.6	6.7	6.4	6.2	7.1	6.3	6.6	8.9	4.5	5.9	
GDP deflator in US dollar terms (change in percent)	5.9	14.1	-11.7	3.5	7.0	6.2	-0.1	0.8	1.8	1.8	1.8	2.1	1.8	1.8	1.8	
Effective interest rate (percent) 5/	1.9	6.0	4.3	2.0	1.8	5.4	4.5	4.0	3.3	2.7	2.4	3.7	7.0	8.3	7.0	
Growth of exports of G&S (US dollar terms, in percent)	74.2	3.1	-21.9	18.4	29.0	17.8	4.1	6.5	8.4	8.4	8.1	8.9	12.5	10.5	11.5	
Growth of imports of G&S (US dollar terms, in percent)	16.9	31.0	-10.4	15.8	20.4	17.9	15.8	15.9	10.7	12.5	5.1	13.0	6.3	13.6	7.3	
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	23.3	19.6	18.7	18.0	18.1	15.6	18.9	46.5	46.5	39.9	
Government revenues (excluding grants, in percent of GDP)	22.7	23.8	24.6			22.4	22.7	22.3	21.9	21.0	20.6			27.5	22.8	
Aid flows (in Millions of US dollars) 7/	166.0	184.6	202.3			361.3	411.8	501.5	547.8	621.8	610.0			174.9	276.7	
o/w Grants	135.8	147.0	135.8			191.5	197.0	203.6	214.2	227.8	211.7			122.9	179.2	
o/w Concessional loans	30.2	37.5	66.5			169.8	214.8	297.9	333.6	394.0	398.3			52.0	97.5	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			17.1	16.6	16.7	16.4	16.4	13.8			4.5	3.7	
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			64.0	58.1	51.7	50.1	48.1	44.9			84.1	81.1	75.0
Memorandum items:																
Nominal GDP (Millions of US dollars)	1006.5	1282.4	1196.4			1354.2	1443.7	1548.6	1673.0	1825.6	1976.2			3253.1	6093.9	
Nominal dollar GDP growth	20.0	27.4	-6.7			13.2	6.6	7.3	8.0	9.1	8.2	8.7	10.8	6.4	7.8	
PV of PPG external debt (in Millions of US dollars)	...	...	818.9			996.3	1175.0	1444.2	1743.2	1980.7	2388.5			2726.3	931.7	
(PVt-PVt-1)/GDPT-1 (in percent)	...	...	...			14.8	13.2	18.6	19.3	14.2	22.3	17.1	-7.0	-2.3	-1.6	

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 I.2. Bhutan: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2009/10-2029/30  
(In percent)

	Projections							
	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2018/19	2029/30
<b>PV of debt-to GDP ratio</b>								
<b>Baseline</b>	74	81	93	104	108	121	84	15
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2009/10-2029/30 1/	74	76	78	77	68	67	69	114
A2. New public sector loans on less favorable terms in 2009/10-2029/30 2	74	85	103	118	125	139	109	38
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2010/11-2011/12	74	82	95	106	111	123	85	16
B2. Export value growth at historical average minus one standard deviation in 2010/11-2011/12 3/	74	88	112	122	126	137	96	23
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010/11-2011/12	74	84	101	113	117	131	91	17
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010/11-2011/12 4/	74	87	103	114	118	130	90	19
B5. Combination of B1-B4 using one-half standard deviation shocks	74	85	101	112	116	128	89	18
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010/11 5/	74	116	133	149	155	173	120	22
<b>PV of debt-to-exports ratio</b>								
<b>Baseline</b>	166	188	217	242	253	282	155	22
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2009/10-2029/30 1/	166	176	180	177	159	155	128	162
A2. New public sector loans on less favorable terms in 2009/10-2029/30 2	166	197	239	273	292	325	202	53
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2010/11-2011/12	166	188	217	242	253	282	155	22
B2. Export value growth at historical average minus one standard deviation in 2010/11-2011/12 3/	166	236	361	393	407	445	247	45
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010/11-2011/12	166	188	217	242	253	282	155	22
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010/11-2011/12 4/	166	200	240	264	275	303	167	27
B5. Combination of B1-B4 using one-half standard deviation shocks	166	196	240	265	276	305	168	26
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010/11 5/	166	188	217	242	253	282	155	22
<b>PV of debt-to-revenue ratio</b>								
<b>Baseline</b>	329	358	418	476	517	586	305	67
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2009/10-2029/30 1/	329	336	348	350	324	322	251	501
A2. New public sector loans on less favorable terms in 2009/10-2029/30 2	329	375	460	538	597	674	397	165
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2010/11-2011/12	329	362	427	486	527	597	311	68
B2. Export value growth at historical average minus one standard deviation in 2010/11-2011/12 3/	329	386	503	559	599	666	350	100
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010/11-2011/12	329	370	453	515	559	633	330	73
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010/11-2011/12 4/	329	382	464	521	561	629	329	84
B5. Combination of B1-B4 using one-half standard deviation shocks	329	372	453	510	551	619	323	80
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010/11 5/	329	512	598	681	739	837	436	96

Table I.2. Bhutan: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2009/10-2029/30 (continued)  
(In percent)

Debt service-to-exports ratio								
<b>Baseline</b>	14	14	13	13	14	14	20	5
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2009/10-2029/30 1/	14	13	12	11	11	9	15	8
A2. New public sector loans on less favorable terms in 2009/10-2029/30 2	14	14	13	14	15	15	23	8
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2010/11-2011/12	14	14	13	13	14	14	20	5
B2. Export value growth at historical average minus one standard deviation in 2010/11-2011/12 3/	14	16	19	21	22	21	29	8
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010/11-2011/12	14	14	13	13	14	14	20	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010/11-2011/12 4/	14	14	14	14	15	14	20	6
B5. Combination of B1-B4 using one-half standard deviation shocks	14	14	14	14	15	15	21	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010/11 5/	14	14	13	13	14	14	20	5
Debt service-to-revenue ratio								
<b>Baseline</b>	28	27	26	26	29	28	39	16
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2009/10-2029/30 1/	28	25	23	22	22	19	29	25
A2. New public sector loans on less favorable terms in 2009/10-2029/30 2	28	27	26	27	31	32	45	24
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2010/11-2011/12	28	27	26	27	29	29	40	17
B2. Export value growth at historical average minus one standard deviation in 2010/11-2011/12 3/	28	27	27	30	32	31	41	19
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010/11-2011/12	28	27	28	28	31	31	42	18
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010/11-2011/12 4/	28	27	26	28	30	30	40	18
B5. Combination of B1-B4 using one-half standard deviation shocks	28	27	26	28	30	30	40	17
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010/11 5/	28	38	37	38	41	40	56	23
<i>Memorandum item:</i>								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	-5	-5	-5	-5	-5	-5	-5	-5

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. This shock is applied only to non-rupee new borrowing.

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.

Table I.3. Bhutan: Public Sector Debt Sustainability Framework, Baseline Scenario, 2006/07-2029/30  
(In percent of GDP, unless otherwise indicated)

	Actual		Est.	Average	Standard Deviation	Projections									
	2006/07	2007/08	2008/09			2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2009/10-2014/15 Average	2019/20	2029/30	2015/16-2029/30 Average
<b>Public sector debt 1/</b>	75.6	66.6	68.7			72.9	80.1	90.2	100.7	110.5	121.1		74.6	32.2	
o/w external debt	72.0	63.9	66.6			68.8	74.9	84.6	94.1	103.1	110.1		69.7	21.8	
Change in public sector debt	-11.2	-9.0	2.1			4.2	7.2	10.1	10.5	9.7	10.6		-15.9	-1.0	
Identified debt-creating flows	-15.1	-16.7	2.1			-4.7	-2.8	-4.0	-5.0	-7.2	-6.2		-14.8	-0.9	
Primary deficit	-2.2	-4.3	-5.3	2.2	6.2	0.1	-1.2	-1.4	-1.0	-1.2	-0.1	-0.8	-11.2	-0.8	
Revenue and grants	36.2	35.3	35.9			36.5	36.4	35.4	34.7	33.5	31.4		31.3	25.7	
of which: grants	13.5	11.5	11.4			14.1	13.6	13.1	12.8	12.5	10.7		3.8	2.9	
Primary (noninterest) expenditure	34.0	31.0	30.7			36.6	35.2	34.0	33.7	32.3	31.2		20.1	24.9	
Automatic debt dynamics	-12.9	-12.4	7.4			-4.7	-1.6	-2.6	-4.0	-6.0	-6.1		-3.6	-0.1	
Contribution from interest rate/growth differential	-10.9	-5.7	-2.1			-1.9	-2.7	-3.2	-4.1	-6.0	-6.1		-3.6	-0.2	
of which: contribution from average real interest rate	-0.8	2.2	1.5			2.3	1.9	1.6	1.1	0.7	0.4		3.7	1.3	
of which: contribution from real GDP growth	-10.1	-7.9	-3.6			-4.3	-4.6	-4.8	-5.2	-6.7	-6.6		-7.4	-1.4	
Contribution from real exchange rate depreciation	-2.0	-6.8	9.5			-2.8	1.1	0.5	0.1	0.0	0.1		...	...	
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	3.9	7.7	0.0			8.8	10.0	14.2	15.6	17.0	16.8		-1.1	0.0	
<b>Other Sustainability Indicators</b>															
<b>PV of public sector debt</b>	3.5	2.7	70.6			77.7	86.5	98.9	110.8	115.9	131.8		88.7	25.7	
o/w external	...	...	68.4			73.6	81.4	93.3	104.2	108.5	120.9		83.8	15.3	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	0.4	3.5	1.6			6.8	5.3	4.7	5.1	5.2	6.0		-0.2	3.2	
PV of public sector debt-to-revenue and grants ratio (in percent)	9.8	7.7	196.5			212.8	237.9	279.0	319.4	346.3	420.4		283.8	100.0	
PV of public sector debt-to-revenue ratio (in percent)	15.6	11.4	287.2			347.4	380.6	443.6	506.5	552.3	638.5		322.7	112.9	
o/w external 3/	...	...	278.5			329.1	357.9	418.4	476.4	517.0	585.5		304.8	67.1	
Debt service-to-revenue and grants ratio (in percent) 4/	7.3	22.0	19.1			18.4	17.7	17.2	17.6	19.1	19.7		35.1	15.5	
Debt service-to-revenue ratio (in percent) 4/	11.6	32.5	27.9			30.1	28.3	27.3	28.0	30.4	30.0		39.9	17.5	
Primary deficit that stabilizes the debt-to-GDP ratio	9.0	4.7	-7.4			-4.1	-8.4	-11.5	-11.5	-10.9	-10.7		4.7	0.2	
<b>Key macroeconomic and fiscal assumptions</b>															
Real GDP growth (in percent)	13.2	11.7	5.7	8.1	2.6	6.6	6.7	6.4	6.2	7.1	6.3	6.6	8.9	4.5	
Average nominal interest rate on forex debt (in percent)	1.9	6.0	4.3	2.0	1.8	5.4	4.5	4.0	3.3	2.7	2.4	3.7	7.0	8.3	
Average real interest rate on domestic debt (in percent)	1.2	1.2	1.1	1.1	3.1	1.2	-0.1	-0.5	-0.8	-1.1	-1.1	-0.4	-1.3	-1.3	
Real exchange rate depreciation (in percent, + indicates depreciation)	-2.7	-10.2	15.4	-1.3	7.5	-4.3	...	...	...	...	...	...	...	...	
Inflation rate (GDP deflator, in percent)	4.6	4.2	4.5	4.4	0.5	4.2	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.1	
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	
Grant element of new external borrowing (in percent)	...	...	...	...	...	23.3	19.6	18.7	18.0	18.1	15.6	18.9	46.5	46.5	

Sources: Country authorities; and staff estimates and projections.

1/ Gross public and publicly guaranteed debt.

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 I.4. Bhutan: Sensitivity Analysis for Key Indicators of Public Debt 2009/10-2029/30

	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>	78	87	99	111	116	132	89	26
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	78	89	102	114	121	136	131	79
A2. Primary balance is unchanged from 2009/10	78	88	101	114	120	136	121	82
A3. Permanently lower GDP growth 1/	78	87	100	113	119	137	99	50
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2010/11-2011/12	78	88	101	114	120	136	94	32
B2. Primary balance is at historical average minus one standard deviations in 2010/11-2011/12	78	95	116	127	132	147	100	34
B3. Combination of B1-B2 using one half standard deviation shocks	78	92	110	121	126	141	95	30
B4. One-time 30 percent real depreciation in 2010/11	78	121	133	145	147	164	122	56
B5. 10 percent of GDP increase in other debt-creating flows in 2010/11	78	96	108	119	124	139	94	30
<b>PV of Debt-to-Revenue Ratio 2/</b>								
<b>Baseline</b>	213	238	279	319	346	420	284	100
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	213	244	292	336	369	443	420	320
A2. Primary balance is unchanged from 2009/10	213	241	286	329	359	434	388	318
A3. Permanently lower GDP growth 1/	213	239	282	324	354	432	315	191
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2010/11-2011/12	213	240	284	326	355	431	299	126
B2. Primary balance is at historical average minus one standard deviations in 2010/11-2011/12	213	262	327	367	393	468	318	130
B3. Combination of B1-B2 using one half standard deviation shocks	213	254	311	351	377	451	304	115
B4. One-time 30 percent real depreciation in 2010/11	213	332	376	417	438	524	391	220
B5. 10 percent of GDP increase in other debt-creating flows in 2010/11	213	263	304	343	370	445	301	115
<b>Debt Service-to-Revenue Ratio 2/</b>								
<b>Baseline</b>	18	18	17	18	19	20	35	16
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	18	18	17	18	20	20	39	29
A2. Primary balance is unchanged from 2009/10	18	18	17	18	20	20	38	32
A3. Permanently lower GDP growth 1/	18	18	17	18	19	20	37	22
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2010/11-2011/12	18	18	17	18	19	20	36	17
B2. Primary balance is at historical average minus one standard deviations in 2010/11-2011/12	18	18	18	20	22	21	38	19
B3. Combination of B1-B2 using one half standard deviation shocks	18	18	18	20	21	21	37	17
B4. One-time 30 percent real depreciation in 2010/11	18	21	24	25	28	29	53	33
B5. 10 percent of GDP increase in other debt-creating flows in 2010/11	18	18	18	20	20	21	37	17

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.



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## **IMF Executive Board Concludes 2009 Article IV Consultation with Bhutan**

On December 15, 2009, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Bhutan.<sup>1</sup>

### **Background**

Bhutan's smooth historic transformation into a parliamentary democracy completed in July 2008, together with prudent economic management, strong donor support, and hydropower sector development delivered an average growth of 9½ percent during the 9<sup>th</sup> Five Year Plan. Poverty declined to 23 percent and various social indicators improved. The global financial turmoil's economic impact was small due to Bhutan's limited global integration; adverse effects were felt in tourism and select manufacturing industries exposed to the decline in commodity prices. Consistent with the strong trade ties with India, inflation has been tracking developments in India's consumer prices, averaging 5 percent in the 9<sup>th</sup> Plan period and just above 7 percent in 2008/09. The 10<sup>th</sup> Plan (2008–2013) builds on the successes of the 9<sup>th</sup> Plan and is pursuing a wide-ranging development agenda to further reduce poverty by promoting industrial, regional, private sector, hydropower, and infrastructure development.

Fiscal policy has been anchored by keeping current spending below domestic revenue. Despite the volatility in both revenue and expenditure arising partly from uncertainty in foreign aid flows, a small current operating surplus (excluding grants) and an overall

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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>.

deficit of 2.7 percent of GDP were achieved in the 9<sup>th</sup> Plan period. For 2008/09, provisional numbers indicate a surplus in both measures. There is, however, a sharp increase in the deficit to 7.6 percent of GDP in the 2009/10 budget, due to increases in current spending (including the 35 percent wage hike for civil servants from January 2009 and increases in spending on goods and services), a rise in capital spending, and stagnant domestic revenue. As a result, domestic financing is projected to rise to more than 7 percent of GDP in 2009/10 compared with close to zero in the previous year.

Bhutan's large and volatile trade deficits have been offset by sizeable foreign aid flows, resulting in a balance of payments (BOP) surplus and reserve accumulation. The BOP surplus has averaged about 8 percent of GDP over the last few years and international reserves stand at about \$758 million. However, the composition of reserves between convertible currencies and Indian rupees is highly skewed towards the former; this is a concern as high development spending, rapid credit growth, and hydropower-related imports are fueling rupee demand. The two rupee credit lines with India have helped tide over rupee shortfalls arising from mismatches between rupee inflows and outflows.

Excess liquidity in the banking system has been substantially reduced because of measures taken by the Royal Monetary Authority (RMA). The RMA increased the cash reserve requirement from 13 percent to 18 percent during 2007/08, hiked the RMA discount rate from 3½ to 6 percent, and increased the volume of RMA discount bills. An increase in credit by the bank where excess liquidity has historically resided and the sweeping of government accounts by the RMA also contributed to reducing the excess liquidity.

With rapid credit growth—averaging about 30 percent over the last decade—banks' asset quality is now showing signs of vulnerability. The capital base remains adequate; but non-performing loans have doubled between December 2008 and June 2009 to 18 percent, reflecting the impact of volatile commodity prices on the ferrous-alloy and steel industries. Credit is also concentrated in a few sectors and financial sector vulnerabilities arise from asset-liability mismatches.

### **Executive Board Assessment**

Executive Directors commended the authorities for the strong economic performance anchored by hydropower sector development, and supported by prudent economic management, firm donor support, and political stability. Directors welcomed the successes of the 9th Plan, including lowering poverty, raising per capita income, and improving social indicators. They noted the comprehensive development agenda of the 10th Plan, and considered the challenge was to achieve the Plan goals while maintaining economic and financial stability.

Directors considered the main fiscal challenges were to avoid overheating pressures and ensure debt sustainability. They noted that the sharp deterioration in the budgeted 2009/10 fiscal position, combined with rapid private sector credit growth, risked fueling

excess demand and pressuring rupee reserves. Directors stressed the need for spending prioritization with a tightening bias in the short term, and an expansion in the revenue base and careful planning of expenditures over the medium term. Noting the concentration of external debt in commercially viable hydropower projects and Bhutan's strong track record of project implementation, Directors concluded that Bhutan's risk of external debt distress remains moderate.

Directors agreed that aligning monetary policy with the peg with the Indian rupee and strengthening financial sector supervision are both necessary for economic stability. Developments in India's interest rates and consumer prices need to be carefully monitored and Bhutan's interest rates appropriately adjusted to avoid policy mismatches and unwarranted pressures on rupee reserves. They also noted that active liquidity management, facilitated by periodic T-bill issuance at market-driven interest rates, would aid monetary transmission. Directors welcomed the impending entry of new financial institutions, which should also help improve liquidity distribution. But they emphasized that the new banks could also trigger further credit growth which, in combination with the high NPLs and credit risks in the banking sector, calls for strengthened financial sector supervision to avoid deepening financial sector vulnerabilities.

Directors underscored the importance of adopting clear guidelines for reserve management to help improve the currency composition of reserves. While the rupee credit lines with India are helpful to overcome the periodic pressures on rupee reserves, it is also important to adopt clear reserve management guidelines that harmonize currency composition of reserves with external liabilities and import demand. They noted that expanding non-hydropower exports to India would also help boost rupee receipts.

Directors supported developing a vibrant private sector for job creation. Providing employment opportunities for the projected large increase in the labor force would require developing skill sets that match the job opportunities. Moreover, to reduce the dependence on the civil service as the preferred employer, an enabling environment for private sector development is essential. Directors noted that improving private sector's access to finance where needed, including through a commercial paper market for inter-corporate borrowing, would facilitate such development.

Directors encouraged the authorities to eliminate the restrictions subject to approval under Article VIII, and remove restrictions maintained under Article XIV as soon as the balance of payments position permits.

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**Bhutan: Selected Economic and Financial Indicators, 2005/06–2009/10 <sup>1/</sup>**

	2005/06	2006/07	2007/08	2008/09 Est.	2009/10 Proj.
<b>Real sector</b>					
Real GDP at market prices (percent change)	6.7	13.2	11.7	5.7	6.6
Consumer prices (percent change, period average)	4.9	5.2	6.3	7.2	8.4
Nominal GDP (at market prices; billions of ngultrum)	37.5	44.5	51.8	57.2	63.5
<b>General government</b> (In percent of GDP)					
Total revenue and grants	35.5	36.2	35.3	35.9	36.5
Foreign grants	17.1	13.5	11.5	11.4	14.1
Total expenditure and net lending	36.7	35.5	34.6	33.7	39.8
Capital expenditure	18.1	18.1	19.3	17.2	20.2
Current balance (excluding grants)	0.6	5.5	5.1	5.2	0.8
Overall balance	-1.2	0.6	0.7	2.2	-3.3
Public sector debt 2/	86.8	75.6	66.6	68.7	72.9
<b>Monetary sector 3/</b> (Percent change, unless otherwise indicated)					
Broad money	41.4	8.6	2.3	24.6	...
Credit to private sector	33.3	34.6	39.7	29.3	...
Interest rates (end of period, in percent)					
Deposits (less than 1 year)	4.5	4.5	4.8	4.8	...
Lending	10–16	10–16	10–16	10–16	...
<b>External sector</b> (In millions of U.S. dollars, unless otherwise indicated)					
Current account balance	-38	145	-27	-121	-100
(In percent of GDP)	-4.5	14.4	-2.1	-10.1	-7.4
Trade balance	-123	47	-72	-159	-187
Exports (goods)	312	573	599	457	538
(percent change)	47.2	83.7	4.4	-23.7	17.8
Imports (goods)	435	527	671	616	726
(percent change)	-5.6	21.1	27.4	-8.3	17.9
Grants (current transfer)	161	149	161	152	214
Overall balance	112	122	45	106	86
(In percent of GDP)	13.4	12.1	3.5	8.8	6.4
Gross official reserves	479	600	646	758	842
(In months of goods and services imports)	9.8	9.4	11.3	11.3	10.8
External debt (in percent of GDP)	82.1	72.0	63.9	66.6	68.8
<i>Of which:</i> power sector debt	56.2	47.7	39.2	36.0	37.5
Debt service ratio (in percent of G&S exports)	5.3	3.8	14.2	15.0	14.3
Ngultrum per US\$ (period average)	44.7	44.2	40.4	47.8	...
<b>Memorandum items:</b>					
Electricity export (in percent of total goods exports)	28.3	29.6	41.9	45.2	38.1
Unemployment rate (in percent) 4/	3.1	3.2	3.7	...	...

Sources: Data provided by the Bhutanese authorities; and IMF 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/ 12-month percent change in June.

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